



Canada
Health
Infoway

Inforoute
Santé
du Canada

YEAR IN REVIEW

2016-2017



About Canada Health Infoway


Canada Health Infoway (Infoway) helps to improve the health of Canadians by working with partners to accelerate the development, adoption and effective use of digital health across Canada. Through our investments, we help deliver better quality and access to care and more efficient delivery of health services for patients and clinicians. Established in 2001, Infoway is an independent, not-for-profit organization funded by the federal government.

The deputy ministers of health for the 10 provinces, three territories and the federal government make up the Members of the Corporation. Some of these Members also serve on Infoway's Board of Directors, which includes leaders from Canada's public, health, legal, financial and technology sectors.

The views expressed in this Annual Report represent the views of Infoway or other persons as indicated, not the Minister of Health or any representative of the Government of Canada.

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A woman with short dark hair, wearing a white lab coat and a stethoscope, is looking down at a clipboard. The image is overlaid with a semi-transparent blue and orange gradient. The text "Message from the Board Chair and President and CEO" is written in a large, black, sans-serif font on the right side of the image.

Message from the Board Chair and President and CEO

Evolving Our Approach to Better Serve Canadians

From the outset, Canada Health Infoway's vision has embraced three key objectives:

- To improve the health of Canadians through innovative digital health solutions
- To improve access to the health care system, while improving the patient experience, and
- To ensure the sustainability of the health care system.

While our focus has not wavered, our approach has evolved through the years to ensure that we continue to leverage the unique organizational attributes and strengths that were created when Infoway was established in 2001. Specifically, Infoway has a clear mandate to serve all Canadians; an extensive network of stakeholders from the public and private sectors; status as an objective third party; and respect as a thought leader in digital health, across the country and internationally.

In 2016-2017 Infoway began working with Health Canada, the provinces and territories and industry stakeholders, retailers and other private

sector companies to create, operate and maintain a financially self-sustaining multi-jurisdiction e-prescribing service called PrescribeIT™.

It will be a single service that can be scaled for use across the country. It will provide safer and more effective medication management by enabling community-based prescribers to electronically transmit a prescription to a patient's pharmacy of choice. This service can improve patient safety, convenience and the overall quality of care by eliminating paper and hand-written prescriptions.

PrescribeIT™ is an excellent example of how Infoway's unique position in Canada can facilitate rapid progress on digital health initiatives. As of the end of 2016-2017, an extensive stakeholder consultation has been completed, Alberta and Ontario have signed Memorandums of Understanding to become early adopters of PrescribeIT™, a vendor partner has been selected and plans are well underway for limited production releases in 2017 and 2018.



A handwritten signature in dark ink, reading "Peter Vaughan".

Dr. Peter W. Vaughan
Board Chair



A handwritten signature in dark ink, reading "Michael Green".

Michael Green
President and CEO

2016-2017 also saw Infoway introduce the Investment Portfolio Optimization initiative. The objective is to assess remaining “foundational” investments (i.e., projects in the six core systems that are foundational to electronic exchange of information), with the goal of accelerating their completion and/or closure and reallocating funds to other priorities including initiatives that will leverage the important assets that have been developed in the jurisdictions. These assets have resulted in an estimated \$19.2 billion in benefits to Canadians and our health system since 2007.

In recent years there has been a significant shift in the evolution of health care in Canada to acknowledge the important role that patients play in managing their care, and Infoway has been at the forefront of this movement. In 2016-2017 Infoway continued to evolve the four components of its patient engagement framework. They include: *listening* to the needs of Canadians through focus groups and surveys, *amplifying* their voices through mechanisms such as videos and presentations, *investing* in projects that provide Canadians with access to their information and other online services, and *influencing* policy through evidence and other means. We are especially proud of the Better Health Together Workshop in March 2017 where 34 people from across the country convened to help develop a vision for patient empowerment in digital health.

As we release this report highlighting the progress made in 2016-2017, we would like to acknowledge the contribution of Graham W.S. Scott, who served as Chair of Infoway’s Board of Directors from August 1, 2010 until February 28, 2017. Under his leadership, digital health solutions have dramatically improved the health, and the lives, of Canadians. Infoway’s strategic direction has also evolved to ensure that the organization and its partners will continue to focus on priorities that will benefit Canadians and our health system well into the future.

2017-2018 promises to be another exciting year for Infoway and for digital health in Canada. As we look forward to the new fiscal year, we are grateful for Health Canada’s continued support and confidence in Infoway and in the transformative power of digital health innovation, demonstrated by a \$300 million investment in Budget 2017. This investment will enable us to continue our commitment to deliver better quality and access to care for all Canadians.

Specifically the new funding will enable Infoway to continue to move forward with initiatives to help transform the health care system by “expanding e-prescribing and virtual care initiatives, supporting the continued adoption and use of electronic medical records, helping patients to access their own health records electronically, and better linking electronic health record systems to improve access by all providers and institutions.”

We are proud of the work that we and our partners have accomplished over the past year and hope that you will take a few minutes to review our 2016-2017 Annual Report.

Highlights from 2016-2017

An estimated

\$19.2 billion

in benefits (cost savings and efficiencies) from investments in telehealth and telehomecare, drug information systems, diagnostic imaging and physician and ambulatory clinic electronic medical records (EMRs) have accrued to Canadians and the health care system since 2007.



More than

40

national health care organizations and governments

collaborated to celebrate Digital Health Week in 2016.



Almost all pharmacists in provinces and territories that have a drug information system are accessing electronic lists of all medications for individual patients;

98%

of pharmacists

receive electronic warnings for adverse drug interactions or contraindications.



Consumer access to virtual care services (e-booking, e-visits, e-views and e-requests for prescription renewals) more than doubled in the past two years – from 6-7%, to

14-22%



In 2017, nearly

162,000 clinicians

across Canada were active users of electronic health records (EHRs), more than double the number from three years ago.



Nearly

24,000

Canadians

have participated in telehomecare programs since 2010; an estimated 7,000 in 2016 alone.




Electronic health record (EHR) data for

94.6%

of Canadians

is available to authorized health care providers and to the individual, as of March 31, 2017.



A photograph of a doctor and a patient. The doctor, a man with a stethoscope, is holding a tablet and talking to the patient. The image has a blue and orange color overlay.

Progress on Availability, Use and Benefits

Myth

Digital health is only for the young and tech savvy.

Fact

Canadians are very connected, including seniors, as 88.5 per cent of Canadian households have Internet access. Digital health offers important opportunities for advancing care for seniors through programs such as telehomecare. In a study in which the average age of respondents was 75 to 84, 98.3 per cent of telehomecare patients were satisfied with the program. Additionally, growth in the availability of digital health services for Canadians more than doubled between 2014 and 2016.

SOURCE

Internet Live Stats: <http://bit.ly/1WSWBPv>. OTN Telehomecare Patient Experience Survey Summary, 2016. Connecting Patients for Better Health: 2016.

For more myth busters, see:
www.infoway-inforoute.ca/myths

Continuing to Make Progress for Canadians

Infoway is committed to openness and transparency in reporting about digital health progress resulting from investments made with taxpayers' funds. Since 2001, the federal government has provided Infoway with \$2.15 billion in six separate grants. Infoway has used these funds to co-invest in 436 projects with the provinces, territories and other partners.

Most of these projects have been “foundational” investments in core systems under 12 investment programs (see page 40). They have produced an estimated \$19.2 billion in benefits to Canadians and the health care system since 2007 (see page 11). As of March 31, 2017, 98 per cent of the funding allocated to these programs had been approved for projects, and 87 per cent of the approved funds with jurisdictions had been paid based on milestones and deliverables achieved. Management has established the Investment Portfolio Optimization initiative to assess remaining projects, with the goal of accelerating completion and/or closure and reallocation of unspent funds to other priorities (see pages 21, 39 and 41).

With these foundational investments largely complete, Infoway is now focusing on investing in innovative projects that advance the use of digital health, such as e-prescribing and scaling telehomecare and patient-centred online services (see pages 13 and 14).

Availability of Digital Health

In the early years, Infoway and the jurisdictions focused on building six core systems to collect information electronically: client and provider demographics, diagnostic imaging in hospitals, profiles of dispensed drugs, laboratory test results and clinical reports or immunizations. This information constitutes the essence of an electronic health record (EHR) – the secure and lifetime record of a person's health and health care history – that's available to authorized health care providers and to the individual.

Infoway tracks each jurisdiction's progress on availability of data in each of the six core systems individually, then uses the average of these values to represent the jurisdiction's overall EHR availability. Based on these numbers, the pan-Canadian average EHR availability is 94.6 per cent as of March 31, 2017.

Use of Digital Health

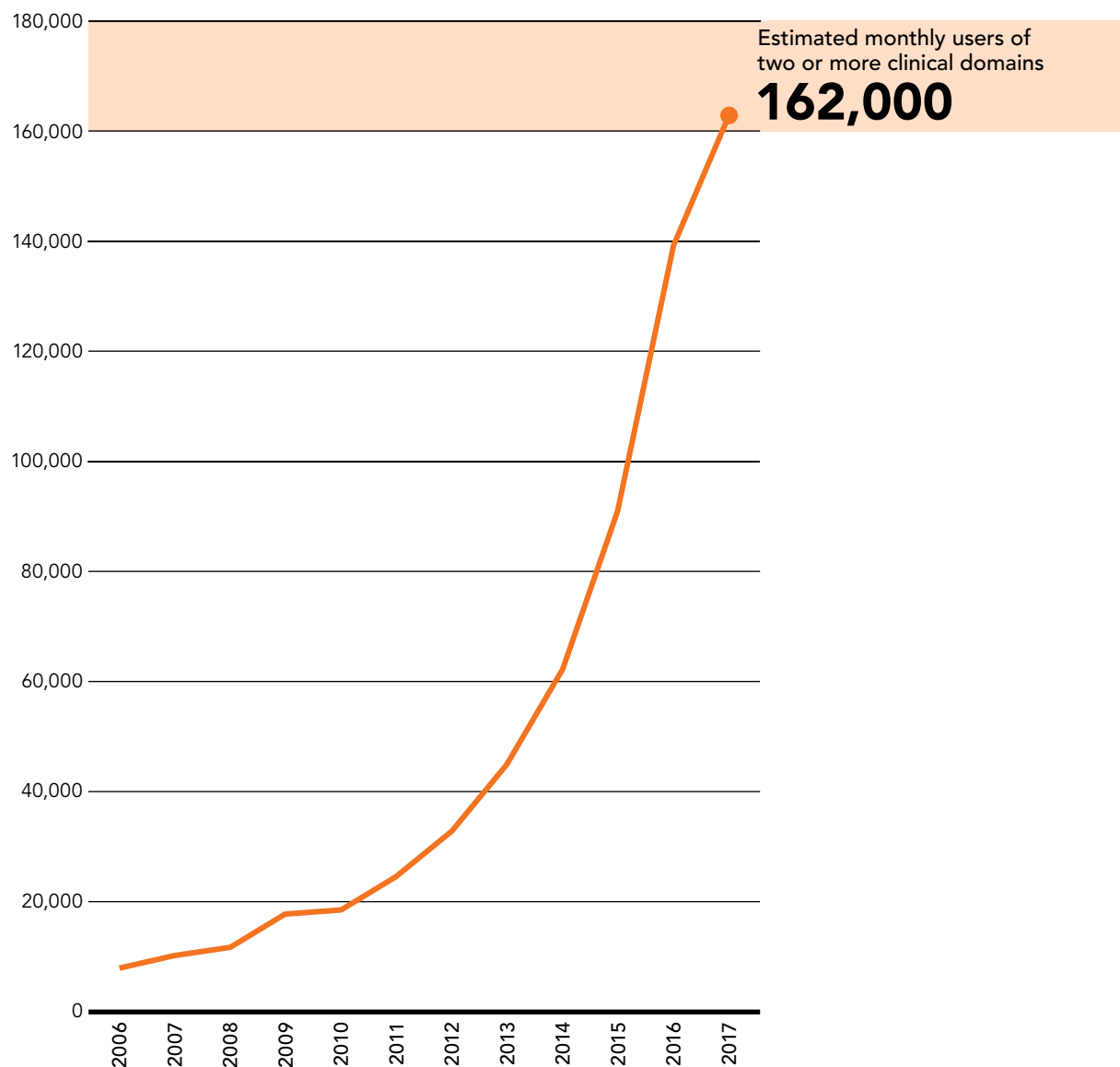
As EHR data becomes available, authorized health care providers need to use it effectively to achieve full benefits. One way Infoway measures use is through payments made to jurisdictions or other project sponsors for achieving agreed-upon use targets. In 2016-2017, Infoway invested \$27 million for this purpose. In total, \$415 million, or 86 per cent of the funding allocated for meeting use targets had been invested as of March 31, 2017. Infoway also measures use by gathering information from each jurisdiction about its active users of a particular system, and by surveying clinicians and Canadians. To learn more about Infoway's methodology, read the blog post *Growth of the iEHR in Canada: User Adoption Landscape & Benefits* on the Infoway website.

Use of EHR Systems

Across Canada, EHRs are at various stages of implementation and maturity, and they have evolved according to provincial and territorial strategies and priorities. A growing number of health care professionals are now using EHRs to access more complete information about their patients.

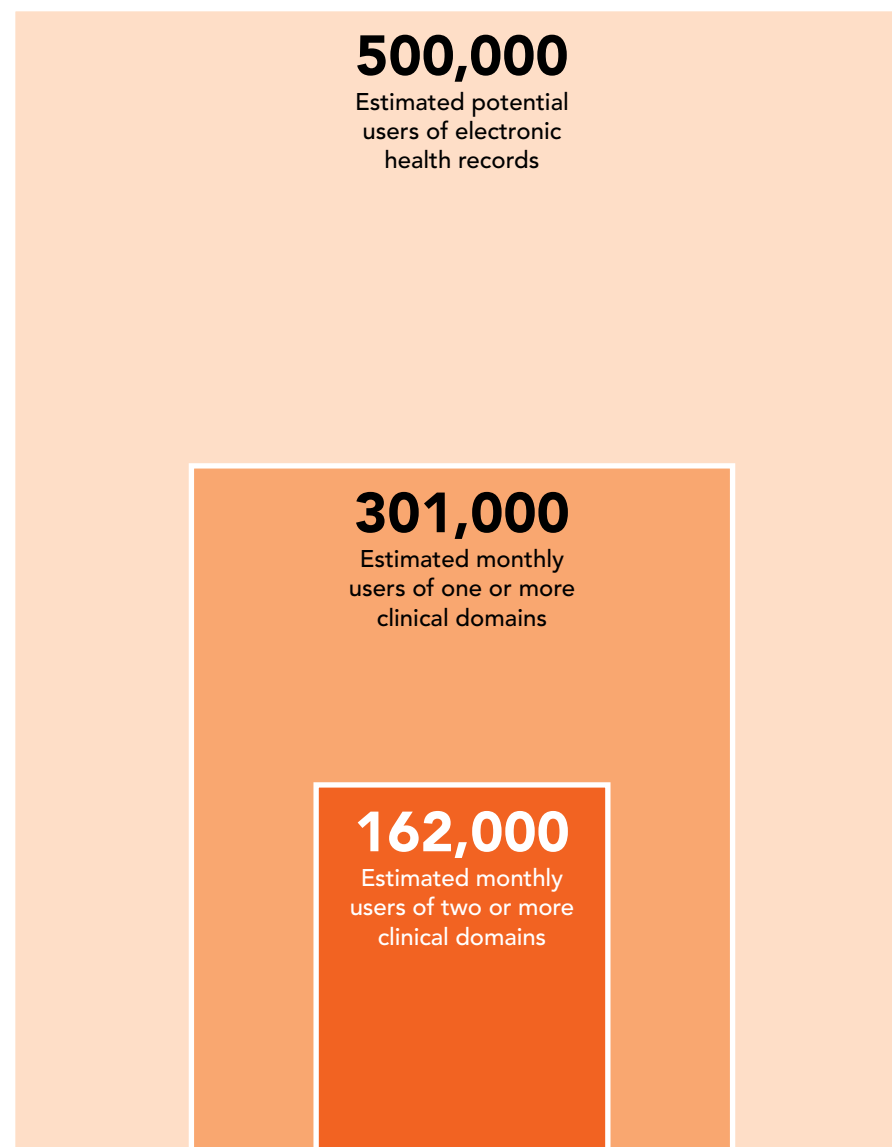
As of January 2017, all provinces and territories were reporting active EHR users (those using two or more clinical domains, such as lab information systems, drug information systems or diagnostic imaging repositories). In total, there were nearly 162,000 active EHR users across Canada in 2017. That number has more than doubled in the past three years, and represents a 400 per cent increase in the past five years. Active users are authorized health care professionals who have accessed the system a minimum of one time per month or three times per quarter. Users of point-of-care systems with data feeds from provincial assets are also deemed to be active users of the EHR.

FIGURE 1 Active Monthly Users of Electronic Health Records



It is estimated that there are 500,000 health system professionals (doctors, nurses, pharmacists, other clinicians and administrators) who could benefit from using EHRs. A majority (301,000) of them are currently using at least one EHR component. This includes provincial/territorial EHRs (two or more clinical domains), single clinical domains (e.g., drug information systems), and regional EHRs. To learn more about Infoway's methodology, please see <https://www.infoway-inforoute.ca/en/component/edocman/resources/reports/benefits-evaluation/2994-measuring-interoperable-ehr-adoption-and-maturity-a-canadian-example?Itemid=101>

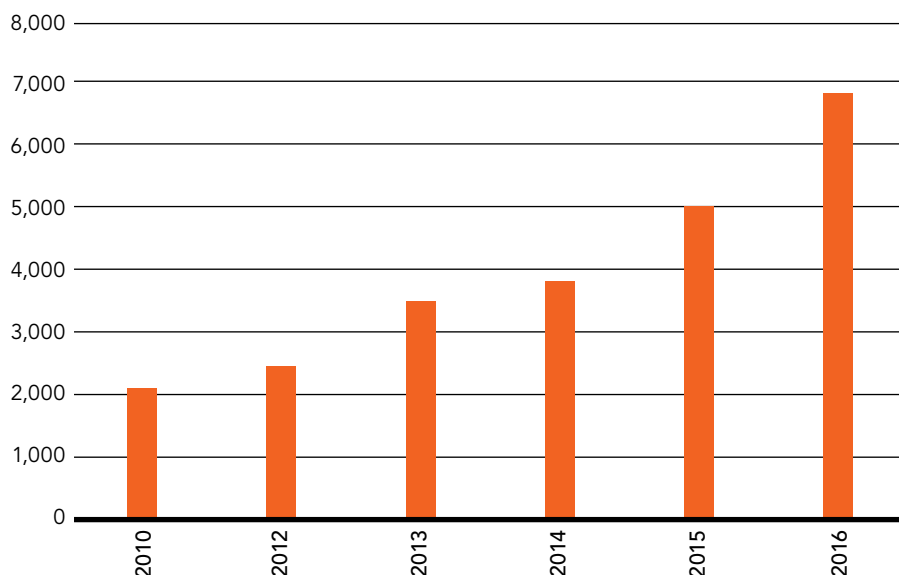
FIGURE 2 Actual and Potential Users of Electronic Health Records



Use of Telehomecare

The use of telehomecare continues to grow, with an estimated 7,000 Canadians enrolled in programs in 2016, an increase of almost 2,000 over the previous year. Nearly 24,000 Canadians have enrolled in telehomecare programs since 2010, across Ontario, British Columbia, Quebec, Prince Edward Island, and Newfoundland and Labrador. Telehomecare uses digital technology to monitor patients remotely (e.g., pulse, blood pressure, blood sugar, weight). Changes in a patient's condition alert health care providers who can take or recommend actions that can prevent emergency room visits and hospital stays. This is especially helpful for patients with complex or chronic health problems (e.g., chronic obstructive pulmonary disease, congestive heart failure) who frequently seek hospital or other care. Telehomecare helps them and their caregivers manage their health while enabling them to stay at home.

FIGURE 3 Enrollment in Telehomecare Programs



Benefits of Digital Health

As adoption and use of systems have increased, so too have the benefits. Since 2007, an estimated \$19.2 billion in benefits have accrued to Canadians and the health care system as a result of investments by Infoway and the jurisdictions in telehealth and telehomecare, drug information systems, diagnostic imaging, and physician and ambulatory (outpatient clinic) electronic medical records (EMRs). That represents an increase of approximately \$3 billion in the past year alone.

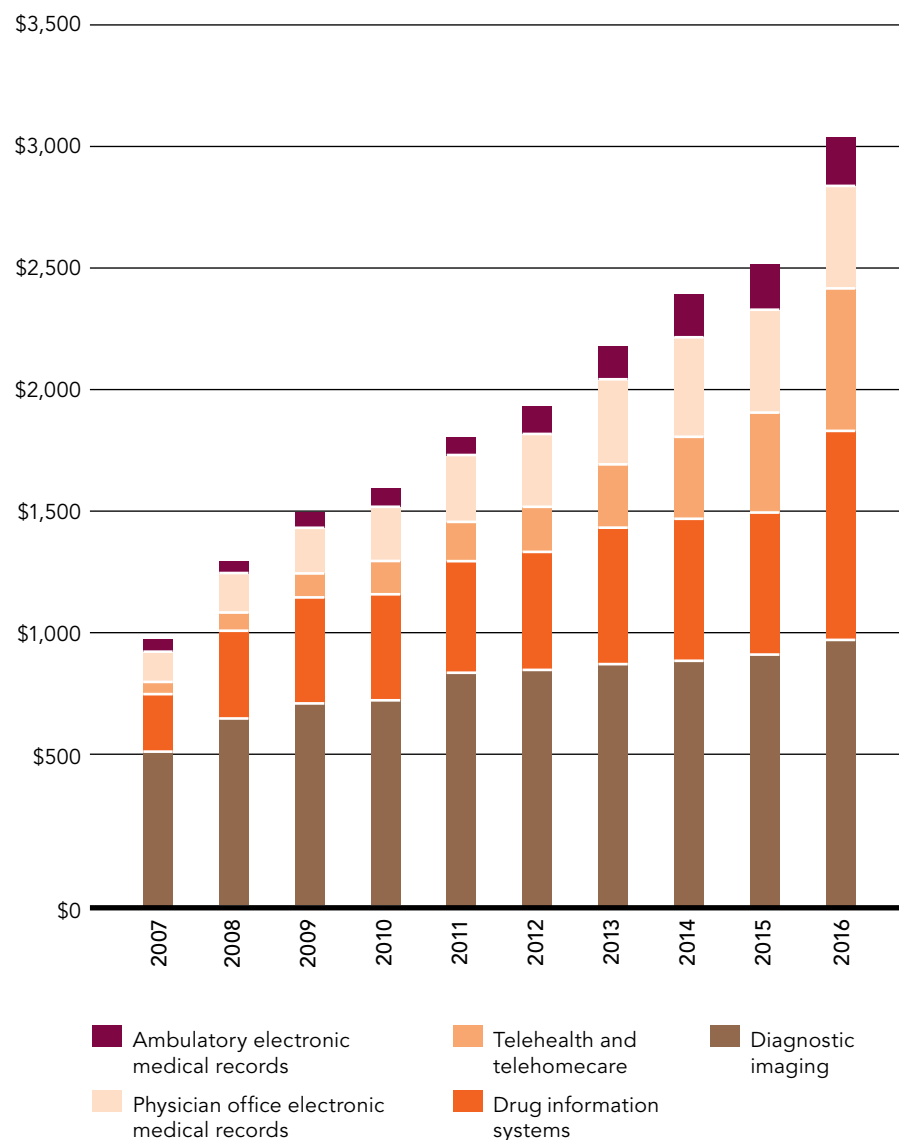
Benefits are measured in a number of ways. They include productivity gains for clinicians, such as those seen through the introduction of diagnostic imaging, and avoided expenses for patients, such as travel costs avoided by seeing a specialist via telehealth instead of travelling a great distance to an urban centre for an in-person visit. As mentioned earlier, telehomecare programs provide numerous benefits for Canada's health system and for patients with chronic conditions. For example, a telehomecare program operated by three health care organizations in Ontario (William Osler Health System, Southlake Regional Health Centre and Toronto Central Community Care Access Centre), demonstrated a significant reduction in emergency department use and hospitalizations, even six months after patients completed the program.

Infoway's cumulative benefits model is based on a series of pan-Canadian benefits reports which were commissioned by Infoway from independent third parties and validated by external subject matter experts. These reports are available on Infoway's website at <https://www.infoway-inforoute.ca/en/what-we-do/progress-in-canada/benefits-evidence-pan-canadian-studies>. As well, read more about Infoway's methodology in *Cumulative Benefits of Digital Health Investments in Canada*.

In addition, Infoway collaborated closely with the Canadian Institute for Health Information on its release of **Canadian-specific results** from the Commonwealth Fund's 2016 International Health Policy Survey of Adults in 11 Countries. The Commonwealth Fund conducts independent research about health care issues, such as periodic surveys of primary care physicians in various countries. The 2016 survey showed that Canadians report better than average experiences when they access care. However, they still report some of the longest wait times for doctors, specialists and emergency department visits compared to citizens in peer countries. The release of the study provided Infoway with an opportunity to highlight strong evidence about the value of continued investment in digital health, especially with regard to how digital health is helping to improve and increase access to health care.

FIGURE 4 Estimated Cumulative Benefits

(in millions of dollars – inflation adjusted to 2016 dollars)





Infoway's Current Focus

Myth

The introduction of virtual visits means I won't see my doctor anymore.

Fact

Face-to-face visits will remain a cornerstone of primary care, but sometimes an in-person visit isn't required. According to research, patients who opt for virtual visits do so to save time, gain faster access to care and avoid a work absence. Virtual visits can also enable continuity of care for those in remote communities, requiring less travel.

SOURCE

Virtual Visits in British Columbia: 2015 Patients Survey and Physician Interview Study.

For more myth busters, see:

www.infoway-inforoute.ca/myths

Medication Safety and Consumer Convenience

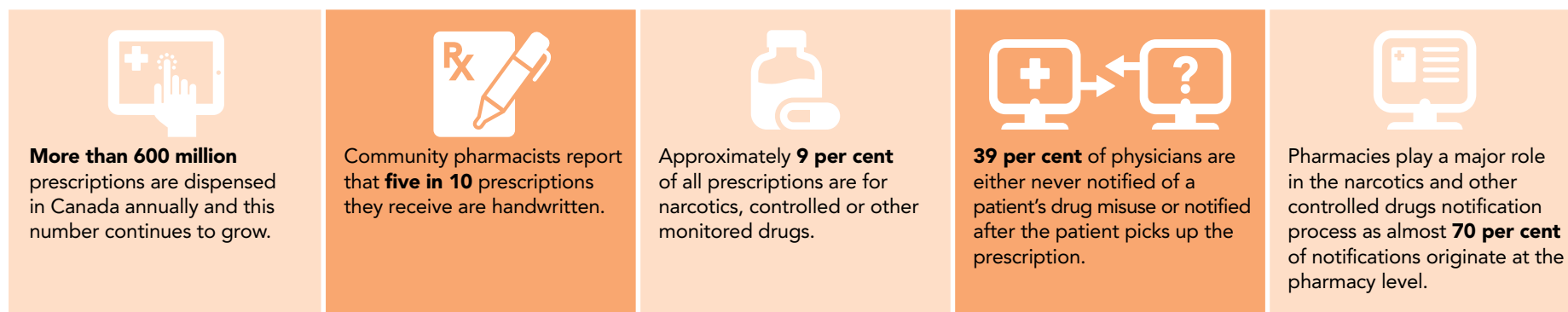
In its 2016 Budget, the federal government provided Infoway with \$40 million over two years to begin development of an e-prescribing service for Canadians.

e-Prescribing

e-Prescribing enables prescribers to transmit a prescription electronically to a patient's pharmacy of choice, eliminating the need for paper prescriptions. This facilitates: greater accuracy and fewer errors in filling prescriptions; safer drug use and compliance for better health outcomes; and less fraud and abuse through more and better information at the point of care. In short, e-prescribing promotes medication safety, and it is more convenient and efficient for patients and providers.

Canada is among the few developed countries without such a system, yet medication is the second largest area of health care spending (after hospitals), nearly doubling as a share of total health expenditures over the past 40 years. There are several reasons for this, including the fact that more seniors are living with chronic conditions that require several medications. As well, Canada is in the midst of an opioid crisis. Opioids, including morphine, OxyContin and fentanyl, are being widely prescribed to treat chronic pain, resulting in addiction and overdose. See pages 29 and 30 for Infoway's response to the opioid crisis.

FIGURE 5 The Case for e-Prescribing



Why does Canada need an e-prescribing service?

Watch the video at <https://www.youtube.com/watch?v=R2ER7iIVADU> to learn more about the benefits of e-prescribing

During 2016-2017, Infoway began working with Health Canada, the provinces and territories and industry stakeholders, to create, operate and maintain a financially self-sustaining multi-jurisdiction e-prescribing service called PrescribeIT™, a single service that can be scaled for use across the country. It will provide safer and more effective medication management by connecting community-based prescribers (such as physicians and nurse practitioners), either through their existing electronic medical record (EMR) systems or standalone applications, to community retail pharmacies' pharmacy management systems to enable the electronic transmission of prescriptions. See [PrescribeIT: 2016 in Review](#).

Infoway held more than 245 meetings with key stakeholder groups during the year, including provinces, territories, vendors, retail pharmacies, prescribers, regulators, privacy experts, insurers and patients. There has been strong support for the service, and by March 31, 2017, Infoway had secured signed Memorandums of Understanding with Alberta and Ontario and was finalizing the details of Nova Scotia's participation. Three other provinces have expressed interest in integrating PrescribeIT™ into their planning cycles. Also by year-end, Infoway had selected a vendor and signed an Early Start Agreement to design, build and operate the service (see page 19).



As part of Infoway's due diligence process, the following work was done this year to provide support for the PrescribeIT™ initiative: identifying privacy and security requirements; exploring the appropriate designations in health information laws for the initiative; analyzing issues related to identity management and authentication; working with Alberta Health on a feasibility study to leverage the use of its authentication and identity management solutions; building the privacy program and information manager agreements that will be required; defining and quantifying the business case; and identifying physician and pharmacist perceptions and interests.

Virtual Services

Since 2010, Infoway has allocated nearly \$80 million to consumer health services (also known as virtual services) projects across the country. Investments fall into two main categories: telehomecare and patient online services.

Telehomecare

In its 2016 Budget, the federal government provided Infoway with \$10 million over two years for telehomecare.

Telehomecare is cost-effective and improves patient outcomes by enabling patients and their caregivers to acquire the necessary skills to manage their health and become self-sufficient. It has been shown to improve patient and caregiver quality of life by providing peace of mind and preventing unnecessary hospital visits.

During 2016-2017, Infoway allocated \$10 million to eight new telehomecare projects in five jurisdictions (Ontario, British Columbia, Quebec, New Brunswick and Manitoba). These projects are targeting patients with chronic obstructive pulmonary disease, congestive heart failure, mental health conditions and chronic kidney disease, as well as patients who need wound care or palliative care. Going forward, Infoway will continue to focus on these areas as well as new and emerging areas where telehomecare could benefit patients and our health system.

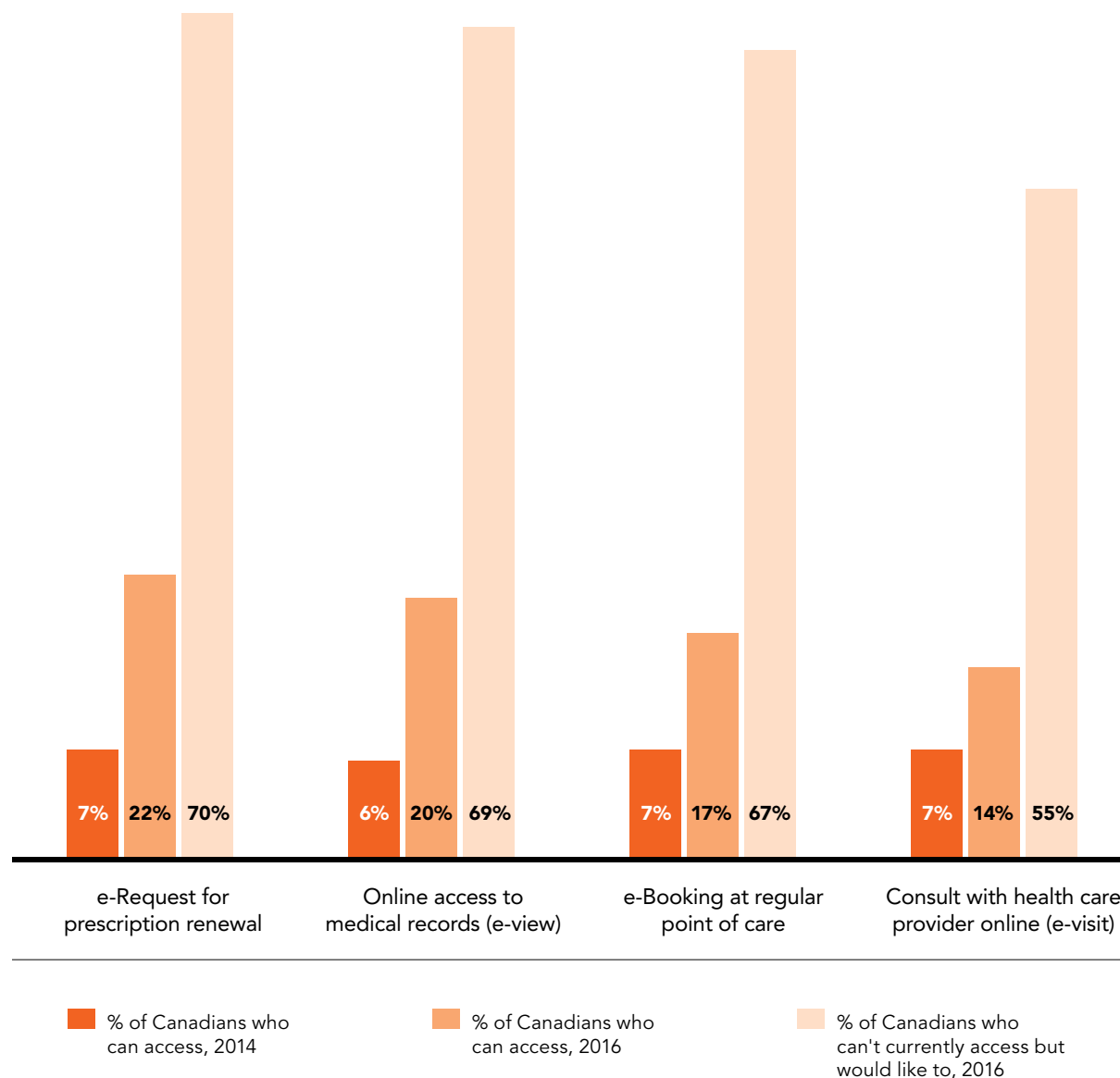
Patient Engagement and Patient Online Services

"If patient engagement were a drug, it would be the blockbuster drug of the century and malpractice not to use it." Leonard Kish, a health IT strategy consultant in the U.S., wrote that statement [in a blog post in 2012](#). Since then, evidence has demonstrated that organizations with a strong emphasis on providing a high-quality patient experience have better health outcomes for their patients. As well, research has linked positive patient experience and lower overhead costs.

For many patients, a better experience means easier access to care, including specialist care through online visits; ability to book appointments and request prescription renewals online; and ability to see their lab test results and other health information online. The ability to do all of these things makes them feel more engaged. They say they are better informed and better able to manage their health, and they feel like active participants in their health care instead of bystanders.

Research shows that Canadians want access to these services, they want to be partners in their care, and they are increasingly accessing digital services that are empowering them. Access to these services has more than doubled in two years. However, while significant progress has been made, there is still a large divide between what people want and what they can access.

FIGURE 6 Access to and Interest in Virtual Care Services





“It’s actually critically important for patients to be engaged in their own health because nobody knows what you’re going through. Digital health can really help you become more engaged and become more active in your own care because you can really start to understand what it is that the doctors are tracking, and you can ask more informed questions about what’s happening.”

JILLIANNE CODE

Victoria, British Columbia (Member, Infoway Patient Advisory Committee)

Infoway has invested in programs in several jurisdictions that are beginning to bridge this divide. For example, MyHealthNS is an online portal in Nova Scotia that enables patients and doctors to share information, including routine test results. A demonstration project that involved 35 family physicians, two specialties and more than 6,000 patients concluded in 2016. The strong results made the case for a provincial rollout which is targeted for spring 2017, making Nova Scotia the first province to offer all residents secure online access to their health information.

FIGURE 7 MyHealthNS Online Portal

The screenshot shows the MyHealthNS Online Portal interface. At the top, there is a navigation bar with links for Home, Messages (with a red notification icon), Health Records, Providers, and Account. A 'Log out, DemoPatient' link is on the right. Below the navigation bar, the user is identified as 'Demo Patient' with a dropdown arrow. A 'Print Health Records' link is in the top right corner. The main content area displays three sections: Medications, Allergies - Medication, and Allergies - Environmental or Food. Each section has a table of data and an '+ Add' button.

Medications					<input checked="" type="checkbox"/> Current medications only	+ Add
Drug	Directions	Last Modified Date	Status	Source		
flonase (5 mg)	2 sprays into each nostril	May 19, 2015	Taking	Patient		
Lipitor (5 mg)		Jul 7, 2014	Taking	Patient		
warfarin (tablet)	take 1 tablet at breakfast & dinner	Mar 26, 2015	Taking	Provider		

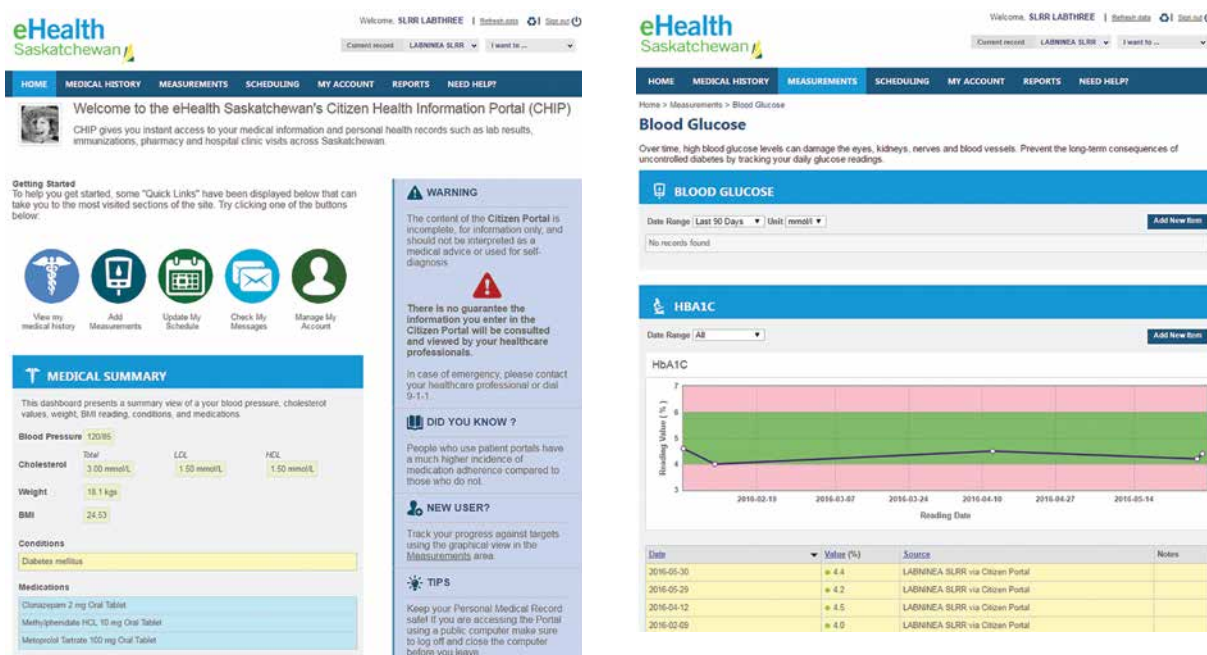
Allergies - Medication					+ Add
Allergy	Reactions	First Occurrence	Status	Source	
penicillin	Rash/Hives		Active	Patient	
sulfa	Breathing Problems		Active	Patient	

Allergies - Environmental or Food					+ Add
Allergy	Reaction	First Occurrence	Status	Source	
nuts	Nasal/Sinus Congestion		Active	Patient	



In Saskatchewan, the Citizen Health Information Portal (CHIP) enables residents to view their personal health information through a secure website. With CHIP, citizens are able to view their lab test results, vaccines and immunization history, prescriptions and medication history, and their history of hospital and acute care visits. They can also add personal health information, set reminders to take medications, record upcoming appointments, and invite care providers to view their profile. More than 1,100 people participated in the pilot for CHIP during 2016. As a result of positive evaluations, the province is now planning to roll out CHIP to more than 100,000 citizens.


FIGURE 8 Saskatchewan Personal Health Record



“To me it’s important being engaged because I don’t want to take a back seat, I don’t want to be reactionary. I want to be proactive and work with my medical team to overcome any medical obstacles I may have. Digital health has really helped me become more engaged in the way that I’m using online support services, online meditation apps, and just finding out more information about my illness that I went through and how to better prepare myself for my treatments and upcoming surgery.”

GARRY LAXDAL

Calgary, Alberta (Award recipient, Infoway Engaged Patient Challenge)

A photograph of two women, one Black and one white, both smiling and looking at a laptop screen. The woman on the left is holding the laptop. The image has a blue tint.

Performance Against 2016-2017 Objectives

Myth

I don't have a right to access my health record.

Fact

Your health care provider is the custodian (trustee) of your health record, responsible for proper use and management of the record. However, the information in the record is yours and you have a right to access it. You can access it through a formal request process, as outlined in law, but many custodians are pleased to share the information if you ask to see it and, in fact, many custodians are creating online portals or personal health record systems that patients can access whenever they wish.

For more information, see:

<http://bit.ly/1d1eyd5> and

<https://www.betterhealthtogether.ca/digital-health-and-you/digital-health-information-and-your-privacy>.

For more myth busters, see:

www.infoway-inforoute.ca/myths

Empowering Canadians Through Digital Health Innovation

Infoway's Summary Corporate Plan for the 2016-2017 fiscal year defined three important goals and specific performance expectations for each.

The corporation's 2016-2017 operational plan was aligned with the Summary Corporate Plan. This section describes our progress on the performance expectations.

1. Safer and More Effective Medication Management

Define requirements, initiate a procurement strategy and secure a vendor agreement for a multi-jurisdiction e-prescribing (eRx) solution.

In this start-up period, detailed e-prescribing technology requirements (including privacy and security) were developed for PrescribeIT™, the name chosen for the service. Infoway issued a Request for Expression of Interest, followed by a Request for Proposal (RFP), to procure a vendor from among Canada's many health IT innovators to design, build and operate the service. A preferred proponent was selected from the RFP respondents and an Early Start Agreement was signed. This agreement will enable Infoway to begin work immediately while continuing to negotiate the long-term Master Services Agreement.

Develop and execute an implementation plan that would see a multi-jurisdiction eRx solution launched within 18 months of secured funding, with consideration given to enabling future patient-centred digital ecosystem solutions.

To support the goal of launching within 18 months of receiving secured funding, Infoway developed an implementation plan that includes details to support the business delivery model and strategy, governance requirements, and a process for the initiative's reporting, risk management and financial tracking. Strategic and business planning has been done in consideration of the future potential uses for PrescribeIT™.

Engage partners and stakeholders, including securing commitment from two early adopter jurisdictions to use the eRx solution in its first year of operation, aiming for operational readiness by mid-2017-2018.

Infoway's stakeholder engagement activities have generated significant interest and support. As a result of this effort, Infoway has secured signed Memorandums of Understanding with Alberta and Ontario to participate in the limited production releases in 2017 and 2018 and is finalizing the details of Nova Scotia's participation in 2018-2019. To inform the development of the service and build awareness and support for PrescribeIT™, Infoway initiated and/or participated in a number of meetings with all key stakeholder groups (including national patient interest and safety groups, clinical associations, prescribers and pharmacists, as well as retail pharmacies, electronic medical record and pharmacy management system vendors). As well, PrescribeIT™ was featured in a number of Infoway-hosted events, including Infoway's Partnership Conference, and the Clinical Engagement Forum, held with physician, nurse and digital health leaders from across Canada.



■
Better Health Together Workshop citizen forum,
March 2017, Toronto, ON

2. Scale Patient-Centred Digital Health Solutions

Grow access to innovative patient-centred online services and complementary clinical solutions, including patient portals in at least three jurisdictions and services that connect patients with health care providers.

A 2016 Infoway survey of Canadians revealed that the availability of consumer digital health tools has more than doubled in the past two years and Canadians' interest in using these solutions remains high. Investments in jurisdictional and large regional implementations across five jurisdictions are expanding the availability of these solutions across the country. Early evaluation results from these initiatives and prior demonstration projects are showing benefits for patients, clinicians and the health system. See the Saskatchewan Citizen Health Information Portal on page 17. As well, Infoway recently approved an investment in a large regional patient portal that will aim to provide service to 60,000 people in South West Ontario.

Engage with patients/families, and support clinical and faculty peer networks, so as to ensure robust input into Infoway's investments in patient-centred online services, as well as their effective use by Canadians and their health care teams.

Infoway continued to engage with patients, their families and caregivers through activities linked to Infoway's patient engagement framework: listen, amplify, invest and influence. In addition to

documenting and sharing stories about how Canadians are benefiting from technology in health, Infoway hosted the third annual and most successful Digital Health Week to date (November 14-20, 2016). The week brought together more than 40 national health care organizations and governments to celebrate the difference that digital health is making for Canadians.

The highlight was the Digital Health Week Forum that brought Canadians together, physically and virtually, to join the conversation and inform the journey in moving them from patients to partners in managing their health. The forum met all five criteria of **Patients Included**, one of the few conferences in Canada awarded this designation. As part of its commitment to including the patient voice, Infoway established the **Engaged Patient Challenge**. Five patients from across Canada received awards that enabled them to attend the forum as well as the Infoway Partnership Conference that happened the same week.

In addition, Infoway undertook a multi-faceted process to refresh the vision for patient-centred digital health in Canada. One key input into this activity was the Better Health Together Workshop – a citizen forum held in March 2017 where 34 Canadians from across the country co-designed a vision for the future of patient-centred, technology-enabled health. This work has informed Infoway's activities and will help to ensure that Canadians have the tools to be empowered and engaged in their health.

Infoway invited more than 100 clinical and faculty peer leaders, clinical reference group members and many other clinical champions of digital health to participate in a Clinical Engagement Forum in February 2017. The agenda was designed to engage the clinical community to provide their insights into the federal government's priorities of patients' access to their information, palliative care, mental health, First Nations health and home care. Infoway's clinical stakeholders have also been invited to join a new online community on Infoway's InfoCentral collaboration platform to enable collaboration and real-time engagement with Infoway's programs and priorities. The medication management community is an example of a very successful online clinical community, with approximately 200 participants contributing to sharing lessons learned, information and best practices to promote medication safety.

The faculty peer leaders will complete their current projects in 2017, delivering on a multi-year program to develop health informatics content and e-resources that embed these competencies into the curriculum for nurses, pharmacists and physicians. The program in 2017-2018 will focus on an interprofessional program with national faculty associations that will develop teaching and learning modules for e-prescribing and other aspects of medication management and patient safety.

Scale and expand proven telehomecare solutions to support patients, families and their health care teams in effective management of conditions such as congestive heart failure and chronic obstructive pulmonary disease, with start-up, deploy and/or evaluation projects in five jurisdictions.

In 2016-2017, Infoway approved more than \$10 million in investments in eight new telehomecare projects across five jurisdictions. These projects will scale programs for chronic obstructive pulmonary disease and congestive heart failure patients, and deploy and evaluate solutions for wound care and palliative patients. Ongoing evaluation projects in mental health, diabetes and chronic kidney disease patient groups are expected to complete during 2017-2018.

Infoway organized and held its first Telehomecare Forum to provide an opportunity for telehomecare project and program leads from across the country to discuss common issues and share best practices. Participants benefited from collaborating and sharing experiences that will accelerate adoption throughout Canada.

3. Continue to Leverage Foundational Investments

Bring existing EHR and EMR investment projects to or near completion, further advancing progress on the delivery and adoption of foundational solutions.

In the summer of 2016, Infoway began an initiative to accelerate the completion of all active jurisdictional projects within the EHR, telehealth, public health surveillance, and EMR & Integration programs such that, wherever possible, they are completed and/or closed by the end of June 2018. Where appropriate, the initiative will recommend the cancellation of remaining work on stalled projects and return unspent funds for redeployment. The original scope of this initiative included 68 jurisdictional projects with approximately \$179 million in remaining unspent funds. During the year, 22 in-scope projects have closed and \$43.5 million has been recouped so far as a result of these closures, together with change requests to active in-scope projects (see pages 39 and 41).

Facilitate implementation and adoption efforts by providing leadership and insights in the areas of privacy, security, solution architecture and standards, interoperability, clinical engagement, change management, and the effective use of emerging technologies.

During 2016-2017, Infoway continued to sponsor and host the pan-Canadian Privacy Forum and the Health Information Privacy Group. The Privacy Forum brings together representatives from health ministries, e-health agencies and oversight offices to discuss information privacy issues for digital health, and it continues to have strong participation from across the country.

The Health Information Privacy Group (HIPG) is a sub-set of the Privacy Forum – made up of health ministry and e-health agency representatives – and focuses on the development of common approaches to information governance issues as they pertain to privacy in digital health. This year, the group completed its work on common understandings related to Privacy Impact Assessments. In response to significant interest in the topic, the HIPG also worked on common understandings related to the access by mature minors to their health information through portals. Access to one's medical information is a right for all Canadians, yet application of this right to persons under the age of majority was challenging for those implementing patient portals and other patient-centred digital health solutions. A webinar called *Pandora's Box is Open: Adolescent Access to Electronic Personal Health Information* drew close to 1,000 participants, the largest number to date for an Infoway webinar.

Building on surveys conducted in 2007 and 2012, Infoway surveyed Canadians again in early 2017 to better understand their perspectives about privacy and digital health. The survey was enhanced to include questions about new areas of focus including e-prescribing, consumer health and mobile devices. The survey found that Canadians still believe privacy laws need to protect health information above all other types of information. They also continue to look to measures such as legislation, policies and

communication regarding breaches, to increase their comfort with the access and use of personal health information. See the survey report *'What Canadians Think': Canadians' perspectives on privacy of personal health information in the context of digital health*.

Infoway's Jurisdictional Implementers' Groups (JIGs) continued to provide support for EHR implementation and adoption in four investment programs: laboratory systems, diagnostic imaging, drug information systems and enterprise architecture. These groups inform jurisdictional strategies regarding topics relevant to their digital health deployment projects, such as data quality, identity management, clinical adoption, and integration. More than 160 people from across participating jurisdictions come together regularly in the JIGs to discuss and collaborate on common implementation, deployment, operational and business issues and to share experiences and lessons learned in the jurisdictional projects. Two of these groups – diagnostic imaging and drug information systems – have recently transitioned to related “communities” on InfoCentral, Infoway's online collaboration platform.

Since 2009, Infoway's national certification program has been promoting the use of trusted, interoperable, standards-based digital health solutions. It is an independent, third-party service against which solution vendors can certify that their products meet pan-Canadian privacy and security standards. In turn, users know that their

choice of software has met the highest standards for the private and secure control of personal health information. To date, more than 30 digital health software solutions that are sold in Canada have been certified by Infoway. These solutions support tens of millions of electronic patient records and are used by more than 30,000 physicians as well as many other clinicians and consumers across Canada.

In 2016-2017, following extensive stakeholder consultation, the certification program launched its newest offering: 2017 Edition. This edition of the service was informed by the latest international and national information technology privacy and security standards as well as by digital health solution specifications maintained by many of Canada's jurisdictions. The result is an increased alignment or harmonization of the privacy and security control requirements for digital health solutions.

The Digital Health Alliance (DHA), initiated in 2015-2016 to maximize national collaboration about topics related to standards and interoperability, continued to grow this year under the direction of the DHA Steering Committee. The DHA collaboration platform, *InfoCentral*, is a hub for communities of interest as well as dialogue across the country. The platform experienced tremendous growth over the past year with 49 active virtual communities of interest across the digital health spectrum involving clinicians, vendors, developers and

other e-health professionals. There were more than 46,100 visits to InfoCentral, up 62 per cent from the previous year.

Digital health standards are a significant element to achieving interoperability because they facilitate the accurate interpretation and exchange of health information when used in digital health solutions. Infoway's DHA is the "go to" source for accessing the standards, terminologies and tooling to enable interoperability efforts. The DHA is the Canadian release centre supporting the distribution of clinical terminology standards including SNOMED CT, lab standards, LOINC/pCLOCD, and various HL7 interoperability standards. New work undertaken this year included HL7 FHIR and the development of the Canadian Clinical Drug dataset with support from Health Canada and other stakeholders.

The annual Infoway Partnership Conference was a resounding success. The 2016 conference, with the theme *A Conversation About Digital Health*, took place in Toronto November 16-17, during Digital Health Week. Speakers included digital health leaders from the United States, the United Kingdom and throughout Canada, who led discussions and shared experiences, as well as best practices, about clinical leadership, serving the needs of Canadians, inter-jurisdictional collaborations, opioid misuse, patient safety and e-prescribing. The conference had a record number of attendees and sponsors and generated unprecedented social media coverage.

In August 2016, Infoway appointed its first Chief Medical Officer. Dr. Asim Masood is providing strategic direction, leadership and the clinical perspective across the organization, as well as thought leadership with professional associations, health providers and organizations at jurisdictional and national levels.

During the year, Infoway continued to foster and develop multiple approaches to clinician engagement and support of clinical communities and working groups. One way was through the InfoCentral platform, which is seeing steady increases in the number of clinical users and the number of repeat visits and interactions. Infoway also provides leadership and insight to the broader clinical community through white papers, research studies and commentary on meaningful, relevant content. Examples include: publication of regular pharmacist, physician and nursing surveys which are developed in partnership with national professional colleges and associations; working with the Registered Nurses' Association of Ontario to release a best practice guideline, *Adopting eHealth Solutions: Implementation Strategies*, to support nurses in the use of digital health; working with the College of Family Physicians of Canada to develop a Best Advice Guide about the use of EMRs; and co-sponsoring, with Accreditation Canada, a **LEADING Practice Awards** challenge to recognize leadership in improving the patient experience through the effective use of digital health technologies.



■ LEADING Practice Awards were presented by Infoway President and CEO Michael Green (second from right) to (left to right): Selina Brudnicki, program lead/senior project manager, University Health Network; Marco Lo, family physician, Magenta Health; and Lisa Adam, director, eHealth Saskatchewan.

In addition to the Clinical Engagement Forum held in February 2017, Infoway also sponsored and delivered a change management workshop in partnership with HealthCareCAN. Infoway sponsors and sustains a **Change Management Network**, a **Change Leaders Network** and a LinkedIN Change Management working group, and works with change leaders across Canada using Infoway's **Change Management Framework and Toolkit**. Infoway and HealthCareCAN have developed the course content for a Change Leadership Certificate program and are certifying employees to deliver it to meet the growing demand.

Progress our benefits evaluation strategy, including sharing results from a new pan-Canadian study on ambulatory EMR use, and improving understanding of the value and critical success factors for the advanced use of digital health solutions for patients, clinicians and the health care system.

Throughout 2016-2017 almost 30 project evaluations and surveys of clinicians and Canadians provided evidence of progress in digital health. Early in the year, a successful launch of a pan-Canadian study about ambulatory electronic medical records (EMRs) revealed substantial value from these investments, as well as success factors for maximizing value. Evaluations from consumer health solution demonstration projects showcased the potential for improving patient empowerment and making the health system more efficient. Evaluations are also informing the launch of PrescribeIT™ by defining and quantifying the business case, as well as identifying physician and pharmacist perceptions. Infoway continues to be a thought leader around evaluation of digital health solutions in Canada, providing guidance and resources to increase the generation and sharing of evidence. As well, Infoway continues to communicate the evidence widely – issuing several news releases and authoring more than 10 articles in selected journals during the year.

Promote the benefits and appropriate use of data and analytics to enable a high-performing health system, and evaluate the potential role of data and analytics in the context of the envisioned patient-centred digital ecosystem.

During 2016-2017, Infoway authored *Health Analytics Deployment Considerations and Approaches*, a paper that provides practical considerations to help guide the successful design, deployment and use of health analytics solutions in a complex digital health ecosystem. The paper also proposes a capability maturity model for health analytics in the Canadian health care system, identifies emerging technologies and assesses opportunities for their use.

Infoway also convenes a discussion forum for those responsible for health analytics in provincial health ministries, e-health agencies, and the Canadian Institute for Health Information. This group shares experiences and successful approaches to analytics, and discusses common challenges to advancing the effective use of health analytics in Canada.

With our partners, stimulate the Canadian economy through investment expenditures. The Conference Board of Canada estimates that every \$1 invested adds \$1.48 to GDP.

An economic impact model developed by the Conference Board of Canada estimates that digital health solution investments made by Infoway and its jurisdictional partners through the \$500 million granted by the Government of Canada in 2010 will create 10,700 person-years of employment and add about \$1.48 to overall GDP for every \$1 invested. The model also estimates that about \$319 million will be recouped by federal, provincial and territorial governments through increased tax revenues. During 2016-2017, these investments generated an estimated 679 person-years of employment, had a positive impact on GDP estimated at \$70 million, and enabled the federal and provincial/territorial governments to recoup approximately \$13 million and \$6 million respectively. From the time the funding was granted in March 2010 through to March 31, 2017, there has been an estimated cumulative impact of 10,789 additional person-years of employment and a \$1.1 billion increase in GDP.

During 2016-2017, the corporation also defined performance expectations related to investment targets, accountability, human resources and jurisdiction-specific priorities, which fall within all three goals.

Investment Targets

Infoway establishes investment approval and investment expenditure targets for each of its 12 investment programs every fiscal year. Infoway's investment model requires specific contractual deliverables be met before payments are made, so meeting annual investment expenditure targets is a financial indicator as well as a barometer for the pace of implementation and advancement of annual planned project milestones and objectives. The investment expenditure target for 2016-2017 was \$130 million, based on jurisdictional plans. Including capitalized PrescribeIT™ expenses, Infoway's investment expenditures for the fiscal year were \$101.8 million or 78 per cent of the target. Although the IPO initiative impacted the current year's target of project investment expenditures, Infoway nevertheless achieved \$67 million in approvals while no significant project investment approvals were anticipated.

Accountability Requirements

Infoway continued to meet its accountability requirements by reporting quarterly to the Board of Directors on the status of program risks, issues and achievements. Unqualified reports for the annual independent financial and compliance audits were delivered without any recommendations to Management.

Human Resources

Infoway operationalized a new organizational structure at the beginning of the fiscal year to support the organization's new strategic directions, including a realignment of some employees to support PrescribeIT™. Employee engagement continued to be a focus, with opportunities for the 115 full time employees to explore the new STRIVE corporate principles (Service, Teamwork, Risk Taking, Innovation, Value and Excellence) and participate in peer communities, employee forums and working groups to provide input and direction for internal programs. Employee development and wellness initiatives focused on supporting personal and professional growth in a number of areas including innovation, achieving results, performance under pressure, financial health, and knowledge of the health care system. Employees also contributed to enhancements made to performance management tools and processes. Infoway continued to support the United Way through a payroll deduction program.

Jurisdiction-Specific Priorities and Outcomes

In 2016-2017, Infoway identified 42 project objectives across the 13 jurisdictions, based on jurisdictional plans and project milestone deliverables. Forty of these objectives were fully or partially achieved, including 14 that exceeded their targets. Here are some of the key achievements:

The Cowichan Tribes patient portal has begun providing patients of this First Nation in **British Columbia** with secure, personalized access to their electronic health records as well as the ability to request appointments and directly message their health care providers online. The next phase of the project will make the portal available to 30,000 patients. Also in BC, the Panorama public health surveillance system was upgraded to include tuberculosis, enabling better management of potential outbreaks of this communicable disease. As well, the client registry was successfully integrated into the province's hospital information system, providing better service to patients and the most accurate data to clinicians.

Alberta signed a Memorandum of Understanding committing the province to work with Infoway as an early implementer of PrescribeIT™. A peer network is making progress in accelerating the advanced use of EMRs. Work also continued on the Alberta Personal Health Portal initiative, which gives patients electronic access to

comprehensive and reliable medical information as well as access to and input into their medical records. This past year, Alberta Health offered enrollment to its employees, and more than 800 registered for an account.

Saskatchewan successfully completed the limited production rollout of its Citizen Health Information Portal (CHIP), which gives patients access to their health information (see page 17). Positive evaluations have resulted in approval of a provincial CHIP project that will reach 100,000 people. The province has also implemented single sign-on for EMRs, resulting in an additional 1,890 active clinical EHR users. As well, a peer network is providing support to accelerate the advanced use of EMRs.

Manitoba has expanded its single sign-on project to give more clinicians access to clinical information through eChart Manitoba, the province's EHR viewer. New source data has been added to eChart, including diagnostic images and reports from Brandon, and clinical encounter information from acute care hospitals. More than 460 facilities in Manitoba are now connected using eChart. Also, ambulatory clinics at the Health Sciences Centre in Winnipeg have implemented a system to record and share clinical data, which will improve efficiency, reduce duplicate procedures and increase patient safety.

Ontario has signed a Memorandum of Understanding committing the province to work with Infoway as an early implementer of PrescribeIT™. There are now more than 17,000 active users of ClinicalConnect (in South West Ontario) and ConnectingOntario (formerly Connecting GTA), EHR portals that integrate electronic patient information from across the care continuum and make it available at the point of care to improve the patient and clinician experience. Close to 1,000 patients with diabetes, chronic kidney disease and mental health conditions have been enrolled in expanded telehomecare programs. More than 15,000 community-based primary care physicians, nurse practitioners and community-based specialists have a certified EMR with more than 10,000 having access to data in the province's Laboratory Information System, and more than 6,600 having access to Hospital Report Manager. As well, peer networks led by the Ontario Registered Nurses' Association and OntarioMD have engaged with and provided support to more than 1,400 clinicians across the province to accelerate the advanced use of patient e-services in primary care.

More than 6,000 primary care clinicians in **Quebec** are now using EMRs. There are more than 29,000 active users of the drug information system (DIS), and more than 2,800 clinicians are using their EMRs to send electronic prescriptions via the DIS on a monthly basis. The DIS has also been upgraded to support medications dispensed in ambulatory settings. Via their EMR or the EHR viewer, clinicians across the province can also consult lab test results from the provincial lab repository, which is connected to all public and private laboratories.

In **New Brunswick**, more than 60 per cent of the 415 clinicians enrolled in the EMR program are actively using their EMR to perform core clinical functions. They are now able to link to the One Patient, One Record EHR System to view all of a patient's relevant clinical information. Also, all community pharmacies in the province are now connected to the DIS, enabling medication profiles for patients to be accessed through the One Patient, One Record system.

The details of **Nova Scotia's** participation in PrescribeIT™ are being finalized. All community pharmacies in the province are now connected to the DIS, enabling authorized clinicians to consult patients' medication profiles through the EHR viewer. MyHealthNS, the personal health record solution, is now in operation and is being rolled out provincially, making Nova Scotia the first province to offer all residents secure online access to their health information (see page 16).

Prince Edward Island has successfully implemented a telehomecare (remote patient monitoring) program for patients with heart failure. By March 31, 2017, 45 patients had participated in the program, enabling them to receive care and support from their homes through electronic monitoring by clinicians in other locations.

More than 2,800 authorized clinicians in **Newfoundland and Labrador** can access relevant clinical and lab information through the province's EHR viewer. A telehomecare program for patients with heart failure and chronic obstructive pulmonary disease had enrolled 452 patients by March 31, 2017.

There was continued progress on **Yukon's** EHR initiative. Implementation of the client registry was completed, the majority of lab information systems functionality has been deployed, and the drug information system is now being used in 50 per cent of pharmacies in the territory.

A territory-wide EMR has been deployed in most health authorities in the **Northwest Territories**, and 127 physicians, nurses with advanced scope of practice and nurse practitioners are now using it to support clinical activities and provide improved patient care. A peer network is also providing support to accelerate the advanced use of EMRs.

In **Nunavut**, 12 community health centre sites now have access to the clinical information system, enabling remote communities to order and receive laboratory and diagnostic imaging results and access all available clinical notes and reports (e.g., consultations, pathology reports). This makes it easier for clinicians in different locations to collaborate, resulting in quicker patient diagnoses and treatment.



Infoway's Thought Leadership

Myth

Digital health is just for health care providers.

Fact

Sixty-nine per cent of Canadians who don't currently have online access to their medical records would like access. Growth in the availability of digital health services for Canadians more than doubled between 2014 and 2016. Providing patients with timely access to their health information is an important part of patient engagement and empowerment, which are directly linked to improved chronic disease management.

SOURCE

Connecting Patients for Better Health: 2016.
"The Case for the Connected Patient," Health Care
Information Management & Communications Canada:
<http://bit.ly/2n4PRpZ>.

For more myth busters, see:
www.infoway-inforoute.ca/myths

Leading the Way in Digital Health

Infoway continues to provide thought leadership for digital health in Canada in areas including medication management, patient-centred digital health solutions, privacy and security, standards and interoperability, clinical engagement and change management. Here are some of the highlights from 2016-2017.

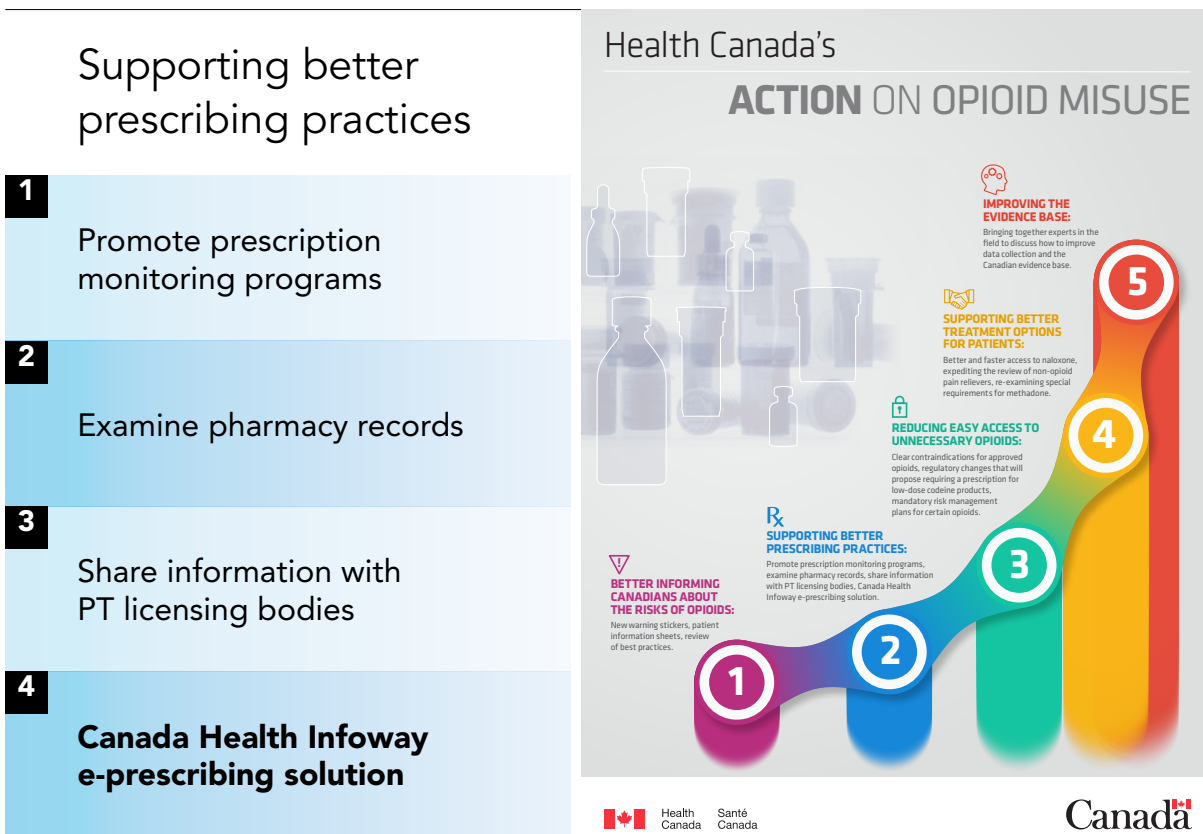
On November 18 and 19, 2016, Infoway President and CEO Michael Green participated in the Conference on Problematic Opioid Use hosted by federal Health Minister Jane Philpott and Eric Hoskins, Ontario Minister of Health and Long-term Care. Green participated in a panel discussion where he spoke about how Infoway's PrescribeIT™ service will reduce inappropriately filled prescriptions for narcotics, improve the detection of fraud and abuse, improve medication cost management, and, in the long term, support drug monitoring and surveillance at a pan-Canadian level. He also attended a news conference with Ministers Philpott and Hoskins, in which Infoway and more than 40 other organizations signed a Joint Statement of Action to Address the Opioid Crisis.



■ News Conference and Signing of Joint Statement of Action. (Michael Green, standing, eighth from the right.)

Infoway's commitment: "I, Michael Green, the President and CEO from Canada Health Infoway, commit to reducing the harm and costs of opioid-related fraud and misuse with the launch of PrescribeIT™ Canada's national e-prescribing service. PrescribeIT's secure electronic transmission will ensure that prescriptions cannot be altered or forged and will provide value-add data to physician regulators, policy makers and others. The launch in Ontario and Alberta by March 2018 will be the beginning of a staged rollout across the country and provide for narcotics surveillance, improved analytics and deliver better health outcomes for Canadians."

FIGURE 9 Supporting Canada's Action Plan on Opioid Misuse



There are **eight elements to Infoway's commitment**, and significant progress has been made to date. For example, clinical leaders can now share information and tools with others across the country to discuss, learn and apply knowledge to promote medication safety practices through the launch of the National Medication Management Stakeholder Community on **InfoCentral**. There, they can access research to better understand the prescribing and dispensing process in Canada.

Infoway also conducted a scan of health information protection statutes across the country. The review indicated that the statutes enable the use of health information for public health purposes as well as for planning, managing and evaluating the health system. In addition, Infoway conducted clinician surveys as part of its research into the prescribing and dispensing process in Canada. This work was successfully completed in January 2017 and shared with stakeholders. It has provided Infoway and its partners with a better understanding of the challenges and opportunities related to prescribing and dispensing of opioids and medications in general.

In January 2017, Michael Green accepted Minister Philpott's invitation to participate in a roundtable discussion about home care. He spoke about Infoway's telehomecare initiatives and how digital health can play a key role in improving access to care in the federal government's priority areas: home care and palliative care; mental health; care for First Nations/Indigenous Peoples, and prescription drug abuse (opioids).

Green also spoke at several national and international events, including: the Canada-US Connected Health Workshop in Washington, DC, where he joined regulators and policy makers from Canada and the U.S. in a panel discussion about the status of mobile health regulation in the two countries; the "UNPACK in Boston" luncheon in Boston, Massachusetts, organized by the Invest in Canada Bureau of Global Affairs Canada, where he gave a keynote address about the benefits of investing in Canada's robust health IT industry; and the Ninth International Conference on eHealth, Telemedicine, and Social Medicine (eTELEMED 2017) in Nice, France. At that event, he gave a keynote address about digital

health in Canada and transforming health care through innovation. He also participated in a panel discussion about technologies to support patient self-management. At eTELEMED 2017, Infoway was also invited to chair and coordinate a special track called *The State of Digital Health in Canada*. It was designed to provide an overview of the digital health landscape in Canada with a special emphasis on governance, funding structures, pan-Canadian standards and investments in digital health infrastructure, adoption and research/evaluation, as well as Infoway's role in advancing the digital health agenda across the country.



Priorities for 2017-2018

Myth

If patients are able to view lab test results online before talking to their doctors, they will be overly anxious.

Fact

Patients who view their results online are no more anxious than those who wait to learn about them in person. A study showed 93 per cent of patients who accessed their lab results online said they had more informed discussions with their doctor. Additionally, patients with one or more chronic conditions were less likely to report being anxious.

SOURCE

Mák G, Smith Fowler H, Leaver C, Hagens S, Zelmer J, "The Effects of Web-Based Patient Access to Laboratory Results in British Columbia: A Patient Survey on Comprehension and Anxiety," J Med Internet Res 2015;17(8):e191 DOI: 10.2196/jmir.4350.

For more myth busters, see:

www.infoway-inforoute.ca/myths

Transforming Health Care Through Innovation

In December 2016, Infoway's Board of Directors approved the Corporation's 2017-2018 Summary Corporate Plan – essentially the organization's business plan for the next fiscal year. The plan defines four goals and performance expectations for each. Below is a synopsis, but for greater context please [read the full 2017-2018 Summary Corporate Plan](#).



1 Promote Medication Safety, and Patient and Provider Convenience and Efficiency

Infoway will roll out the limited production release of PrescribeIT™ in two provinces. The service will facilitate collaboration among health care providers to ensure safer prescribing and remove their dependencies on telephones and fax machines.

2 Scale and Spread Innovative Solutions

Infoway will continue to scale existing innovative solutions within and across jurisdictions. It will also introduce digital innovation in areas where there is expressed need and potential for technology to improve access, health outcomes and clinical and health system efficiencies (e.g., chronic disease, mental health and palliative care).

3 Connect Canadians to their Health Information

Infoway will leverage investments made in foundational systems to empower Canadians to take control of their health and create seamless interactions with their care team. Infoway will also support innovative solutions to bring together the data stored in clinical systems funded through past investments, and make these available to Canadians.

4 Provide Digital Health Leadership

Infoway will work independently, and through strategic collaboration with key stakeholders, to address those critical enablers required to improve patients' and families' health experiences, optimize health outcomes and maximize value for money on health care spending. These enablers include things like ensuring that supportive legislation and policies are in place, and facilitating practice and process change, among others.

A man and a woman in medical scrubs are looking at a tablet together. The man is on the left, and the woman is on the right. They are both looking down at the tablet. The background is a light blue gradient.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Myth

My doctor receives all the information needed to provide my care.

Fact

There is still work to be done to connect points of information. One in five patient interactions in primary care environments and one in three in long-term care settings were found to be missing relevant clinical information (i.e., hospital visit/discharge notes, specialist notes, diagnostic imaging, lab tests). Not having relevant clinical information at the time of patient encounters impacts patient safety, the patient experience, clinicians' ability to provide care and overall health system costs.

SOURCE

[The Need for Electronic Health Records in Long-Term Care, 2017](#). Bridging the information gaps during patient encounters across care settings, 2017.

For more myth busters, see:
www.infoway-inforoute.ca/myths

Our Ongoing Commitment to Accountability

The following section provides an overview of Infoway's operations and a detailed explanation of its financial statements and should be read in conjunction with those statements. This discussion and analysis is the responsibility of Management.

The Board of Directors carries out its responsibility for review of Infoway's Financial Statements through its Finance, Investment and Audit (FI&A) Committee, whose voting members are independent of Management. The FI&A Committee reviews the financial statements and recommends their approval by the Board of Directors.

This section includes certain forward-looking statements that are based on current expectations and, therefore, subject to risks and uncertainties. Many internal and external factors may cause actual results to differ materially.

Governance and Accountability

Infoway was established in 2001 as an independent, not-for-profit shared governance corporation. Funding agreements provide guiding principles for the use of the funds received from the federal government and set out expected results. The governance of the corporation is based on collaboration on an equal basis and shared oversight by the federal, provincial and territorial governments. Infoway's funding agreements require the corporation to meet annual audit requirements and other specified reporting requirements as well as provide effective management and stewardship of the \$2.15 billion in capitalization entrusted to Infoway. Infoway's Board and Management safeguard its funds and project investments by adopting best practices and continuous improvement initiatives as they relate to governance and accountability.

Investment Funds and Performance

To exercise prudent and effective management and stewardship of the investment funds, Infoway has an independent custodian of the funds, which also provides compliance services. An investment manager is retained to ensure the cash-flow matching strategy is applied, and an investment consulting firm provides advisory services.

A Board-approved statement of investment policy, based on the funding agreements with the federal government, governs the fund investments. The primary objective stated in Infoway's investment policy is the preservation of capital. A secondary objective is maximizing the return. The investment strategy, policy and management structure are reviewed annually.

In April 2014, Infoway moved toward a cash-flow matching strategy for its Main fund and Health Surveillance fund. The objective of the cash-flow matching strategy is to ensure alignment between Infoway's assets and liabilities.

FIGURE 10 Performance Summary as at March 31, 2017

FUND	MARKET VALUE (\$ MILLIONS)	1 YEAR	4 YEARS
Main fund	\$237.0	0.83%	1.64%
Health Surveillance fund	\$29.3	0.79%	1.60%
EHICT fund	\$1.0	0.53%	0.74%
2010 budget grant fund	\$9.0	0.52%	0.80%
2016 Contribution Agreement fund	\$1.0	-	-

Risk Management

Information technology investments, in general, entail risk. This is compounded by the large-scale innovative technologies and multiple partners needed to transform a complex health care system. Recognizing this, Infoway has committed to an integrated, or enterprise risk management (ERM) approach since fiscal year 2005-2006. This integrated approach entails collaborative project and program risk assessments with jurisdictions, quarterly corporate risk assessments as well as quarterly reporting and discussion at the Board.

This integrated framework forms the foundation for the setting of appropriate risk management processes and the consistent communication and reporting of key risks that could have an impact on the achievement of Infoway’s business objectives and strategies. Infoway’s ERM framework clearly indicates the roles and accountabilities of senior management and the Board (see Figure 11).

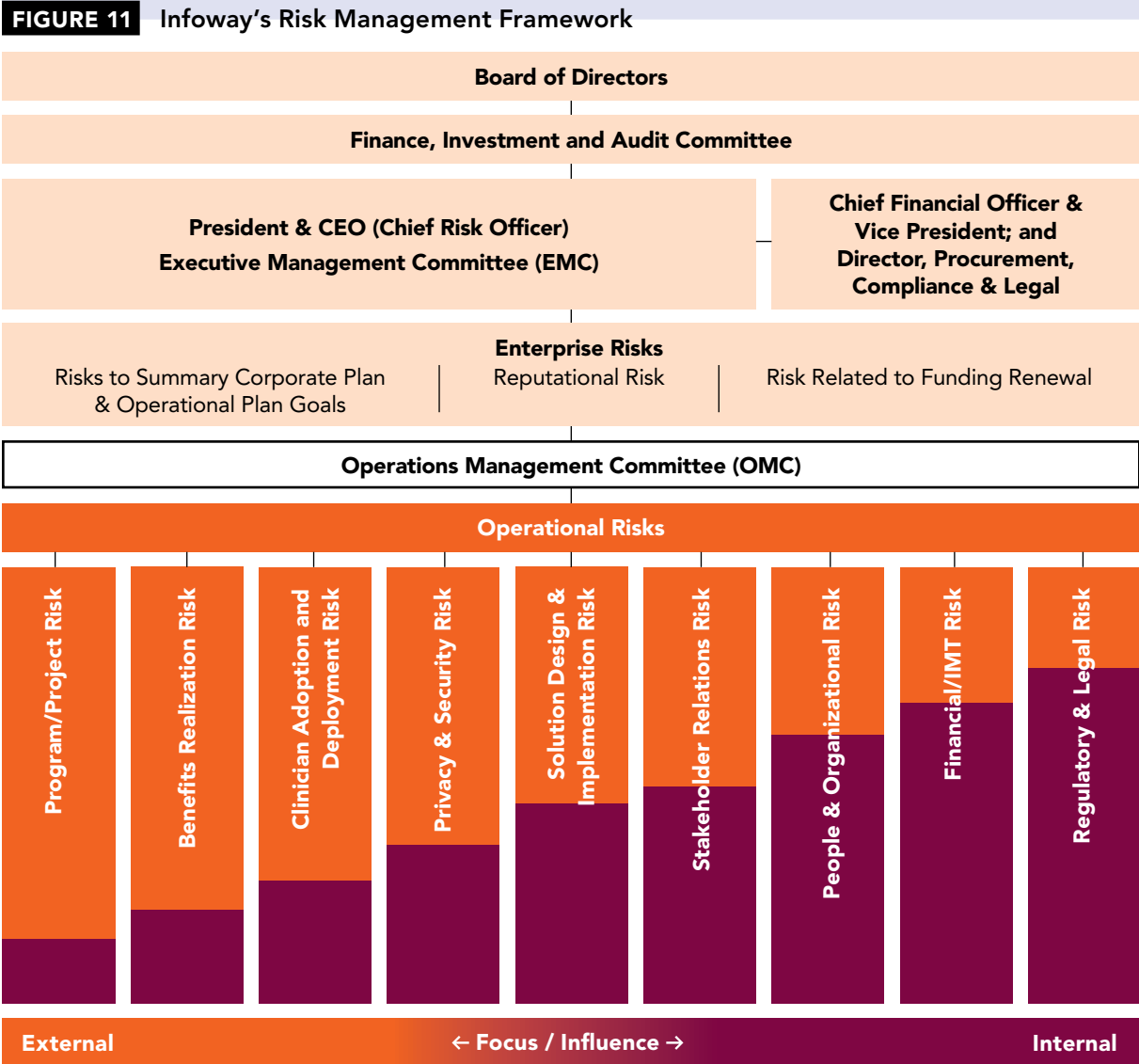
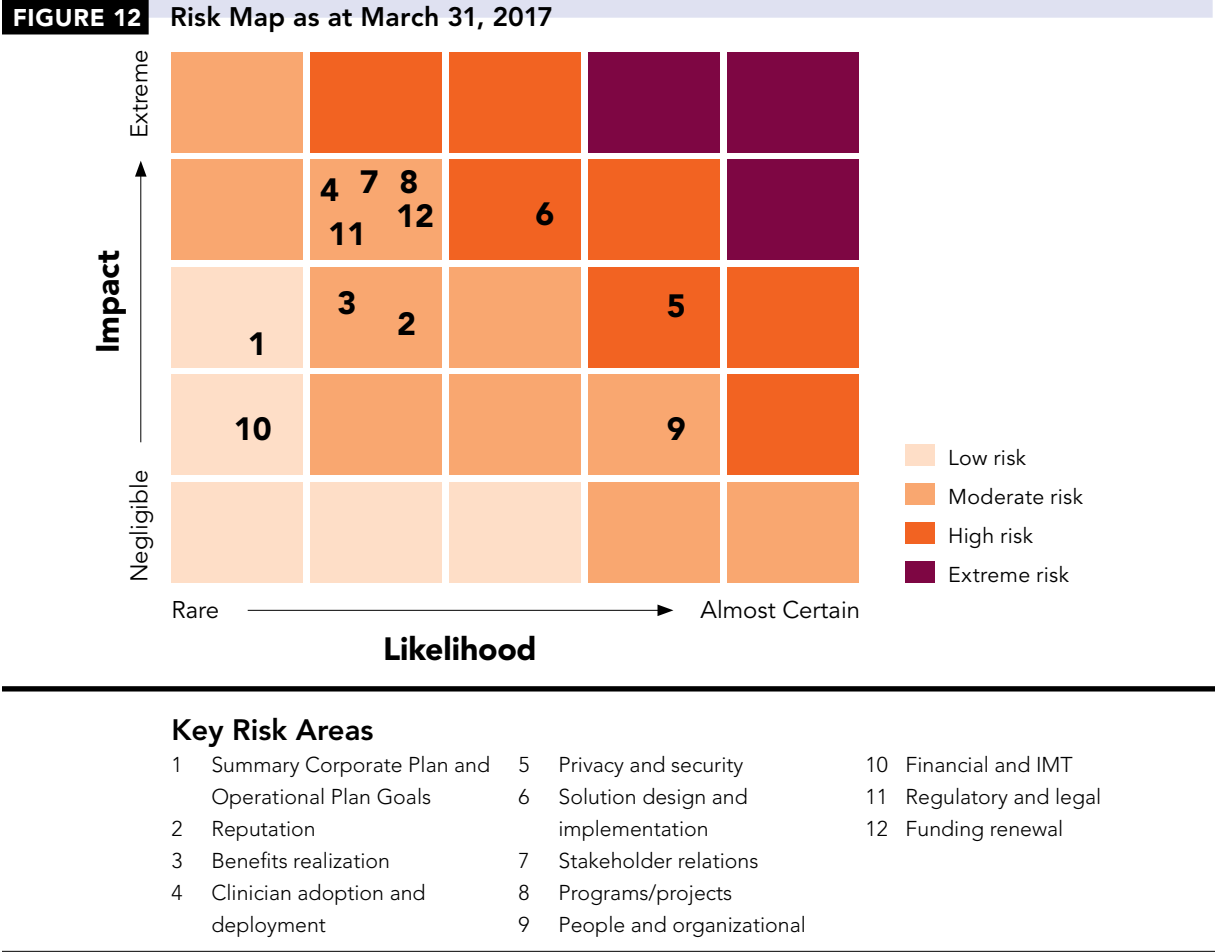


Figure 12 depicts the assessment of key risks (some of which are outside of Infoway’s direct control), at the end of the 2016-2017 fiscal year. Infoway has developed and implemented a range of tactics designed to mitigate these risks appropriately. Through its Finance, Investment and Audit Committee, the Board reviews, on a quarterly basis, Management’s assessment of the key risks, including any emerging and new risks, as well as the mitigation tactics to ensure the successful attainment of Infoway’s goals.

The risk assessment for each of the 12 categories reflects continued progress with existing programs/ investment projects and a decreased level of uncertainty surrounding Infoway’s environment.



Management's Explanation of Results

As at March 31, 2017, total funding available for investment projects amounted to \$2.209 billion, and Infoway had approved a cumulative total of \$2.156 billion in project funding (97.6 per cent of total funds). These amounts are specifically earmarked and not available for other initiatives.

Including capitalized PrescribeIT™ expenses, program/project investment expenditures totaled \$101.8 million for this fiscal year against a corporate objective of \$130 million. Program/project investment expenditures since inception totaled \$1.970 billion. It is expected that program/project expenditures will reach a corporate target between \$90 million-\$110 million in 2017-2018. Cumulative program/project expenditures for the year ending March 31, 2018, are expected to reach \$2.070 billion.

Investment income, net of custodial and investment management fees and change in fair value of investments, amounted to \$2.1 million for fiscal year 2016-2017 compared to \$2.8 million for the previous year. Investment income is influenced by the pace of outflows, as well as rates of return, which are influenced by financial market conditions.

The total fund balance, including interests receivable, was \$277.3 million as of March 31, 2017. A cumulative total of \$2.156 billion in project funding has been approved and committed, of which \$186.0 million was not spent as of the same date, as explained in more detail below.

Total remuneration, including any fee, allowance or other benefits paid to full time employees and officers for the fiscal year amounted to \$24.2 million, of which \$4.9 million was paid to Infoway's management executives, officers and Board of Directors involved in the deployment or execution of the purpose of the funding agreements.

Projects and Programs

Infoway's Board previously approved the specific strategies and allocated funds for each of the 12 existing investment programs. Following this, Infoway has continued to work closely with the jurisdictions to define specific projects within the 12 programs.

Program investment expenditures are recognized on a milestone-completion basis. Investment expenditures are recognized when work is actually completed on individual projects based on predetermined deliverables.

In this cost-sharing investment model, Infoway can move only as quickly as its sponsors can match funds and deliver the projects. Many factors affect their pace including: jurisdictional readiness, competing priorities, procurement

processes, and vendor product readiness.

Building on the delayed projects review conducted in 2014-2015, Management established a new business initiative called Investment Portfolio Optimization (IPO) to conduct an in-depth assessment of all remaining EHR, EMR, telehealth and public health surveillance projects. The goal is to accelerate the completion and/or closure of these projects by June 30, 2018, recouping any unspent funds for reinvestment in Infoway's new strategic priorities. There were 68 active and on-hold projects included in IPO's initial scope, totalling approximately \$179 million in remaining unspent funds as at March 31, 2016. Twenty-two in-scope projects have closed since then and \$43.5 million has been recouped so far as a result of these closures, together with change requests to active in-scope projects. The remaining 46 in-scope projects represent a total of approximately \$94 million in unspent funds as at March 31, 2017. Completion plans have been defined for these projects and are categorized in Figure 15.

FIGURE 13 Project Information as at March 31, 2017

(in millions of dollars)

FOUNDATIONAL PROGRAMS	INVESTMENT EXPENDITURES	COMMITMENTS	TOTAL*
Infostructure	67.3	–	67.3
Interoperable EHR	331.3	19.8	351.1
Innovation & Adoption	120.0	2.8	122.8
Diagnostic Imaging Systems	346.2	21.8	368.0
Laboratory Information Systems	156.5	4.9	161.4
Drug Information Systems	175.0	15.1	190.1
Registries	126.5	0.7	127.2
Telehealth	105.4	3.2	108.6
Public Health Surveillance	117.4	26.7	144.1
Patient Access to Quality Care	42.6	–	42.6
EMR & Integration	310.0	30.0	340.0
Consumer Health Solutions	61.8	44.4	106.2
Total Foundational Programs	1,960.0	169.4	2,129.4
NEW CORPORATE STRATEGIES			
Telehomecare	2.8	8.0	10.8
PrescribelT™	7.4	8.6	16.0
Digital Health Ecosystem	0.1	–	0.1
Total New Corporate Strategies	10.2	16.7	26.9
Total	1,970.3	186.1	2,156.4

All values are cumulative since inception. * Net of project surpluses from completed projects.

FIGURE 14 Summary of Project Approvals and Investment Expenditures

(in millions of dollars)

	2015 LTD	2015-2016 ACTUALS	2016-2017 ACTUALS	2017 LTD	2017-2018 ESTIMATED	2018 ESTIMATED LTD
Projects/programs approved*	2,140.2	36.2	76.6	2,156.4	N/A	N/A
Number of projects	406	13	17	436	N/A	N/A
Investment expenditures	1,743.2	134.0	93.1	1,970.3	100.0	2,070.3
Operating expenses	266.6	18.9	16.9	302.4	16.8	319.2

LTD: Life to Date. *LTD cumulative total project approvals are net of surpluses from previously closed projects. Operating expenses over the years have been primarily funded by investment income generated on the Main fund.

FIGURE 15 Investment Portfolio Optimization: Progress as at March 31, 2017

(in millions of dollars)

CATEGORY	#	REMAINING UNSPENT FUNDS
Projects that are on track for completion by June 30, 2018 and require only regular monitoring	34	\$69
Projects with imminent key events (e.g., change requests soon to be presented for Infoway's approval, or upcoming events within the jurisdictions), following which the projects will be re-assessed	9	\$18
Projects that may require reductions in scope (and some funds to be recouped) in order to complete within an acceptable timeframe	3	\$7
Totals	46	\$94

FIGURE 16 Remuneration Ranges

OCCUPATIONAL CATEGORY	MINIMUM	MAXIMUM
Coordinators and Support Functions	\$42,800	\$83,900
Analysts	\$59,000	\$115,500
Managers, Subject Matter Experts and Specialists	\$81,400	\$159,300

OCCUPATIONAL CATEGORY	MINIMUM	MAXIMUM
Directors and Group Directors	\$112,300	\$219,600
Executive Directors	\$154,700	\$257,800
Senior Executives	\$181,000	\$352,900
CEO	\$317,700	\$529,400

As at March 31, 2017, the organization counted 13 coordinators and support employees; 16 analysts, 33 managers, subject matter experts and specialists; 36 directors and group directors; nine executive directors; seven senior executives and the CEO.

Independent Auditors' Report

To the Members of **Canada Health Infoway Inc.**

Report on the financial statements

We have audited the accompanying financial statements of **Canada Health Infoway Inc.**, which comprise the balance sheet as at March 31, 2017 and the statements of operations and cash flows for the year ended March 31, 2017 and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

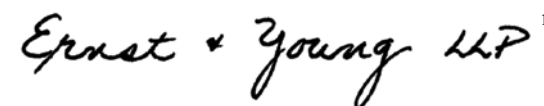
An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting

estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of **Canada Health Infoway Inc.** as at March 31, 2017 and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.



Montréal, Canada

May 31, 2017

¹ CPA auditor, CA, public accountancy permit no. A120803

Balance sheet

As at March 31

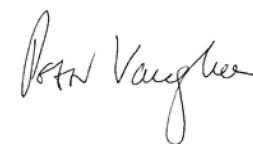
[In thousands of dollars]

	2017 \$	2016 \$
ASSETS		
Current		
Cash	877	988
Temporary investments [note 3]	121,622	163,208
Receivables	1,272	1,964
Sales tax recoverable	2,810	3,725
Prepaid expenses	1,606	1,056
	128,187	170,941
Portfolio investments [note 3]	154,439	162,671
Tangible assets [note 4]	181	255
Intangible assets [note 5]	8,197	283
	291,004	334,150
LIABILITIES, DEFERRED CONTRIBUTIONS AND NET ASSETS		
Current		
Accounts payable and accrued liabilities	83,040	72,545
Deferred contributions [note 6]	199,586	261,067
Deferred capital contributions [note 6]	8,378	538
	207,964	261,605
Net assets	—	—
	291,004	334,150

Commitments [note 7]

See accompanying notes to financial statements

On behalf of the Board:



Dr. Peter W. Vaughan
Director



Arnold Park
Director

Statement of operations

Year ended March 31
[In thousands of dollars]

	2017 \$	2016 \$
EXPENSES		
Programs and projects		
Infostructure	3,981	5,021
Interoperable EHR	7,556	44,371
Innovation and Adoption	2,038	6,639
Diagnostic Imaging Systems	8,824	7,110
Laboratory Information Systems	10,636	13,284
Drug Information Systems	7,379	2,707
Registries	709	1,260
Telehealth	1,118	4,926
Public Health Surveillance	5,573	5,923
Patient Access to Quality Care	3,666	3,769
Electronic Medical Record	17,987	28,062
Consumer Health Solutions	13,367	10,880
PrescriberIT™	7,371	—
Telehomecare	2,755	—
Digital Health Ecosystem	121	—
	93,081	133,952
Operating	16,916	18,894
	109,997	152,846

	2017 \$	2016 \$
REVENUE		
Contribution from restricted resources [note 6]	109,693	152,393
Amortization of deferred contributions relating to:		
Tangible assets	155	320
Intangible assets	149	133
	109,997	152,846
Excess of revenue over expenses for the year, being net assets at end of year	—	—

See accompanying notes to financial statements

Statement of cash flows

Year ended March 31

[In thousands of dollars]

	2017 \$	2016 \$
OPERATING ACTIVITIES		
Contribution received from the Government of Canada	58,877	82,700
Restricted investment income received	3,315	14,443
Cash paid for projects, programs and operating expenses	(103,757)	(196,888)
Cash used in operating activities	(41,565)	(99,745)
INVESTING ACTIVITIES		
Net disposal of investments	49,598	99,388
Acquisition of tangible assets	(81)	(34)
Acquisition of intangible assets	(8,063)	(155)
Cash provided by investing activities	41,454	99,199
 Net change in cash during the year	 (111)	 (546)
Cash, beginning of year	988	1,534
Cash, end of year	877	988

See accompanying notes to financial statements

Notes to financial statements

March 31, 2017

[Amounts in tables are in thousands of dollars]

1. Incorporation and nature of operations

The Corporation was incorporated by Letters Patent on January 22, 2001 under Part II of the Canada Corporations Act and commenced active operations on March 21, 2001. The Corporation is a not-for-profit entity, as such, is exempt from income taxes. On September 5, 2013, in order to make the transition under the new Canada Not-for-profit Corporations Act, the objectives of the Corporation have been updated to reflect current realities and potential future opportunities.

The objectives of the Corporation are as follows:

- a) Accelerate and promote the development, adoption and benefits of modern, innovative and transformative systems of electronic health information and communication technologies;
- b) Enter into arrangements with the governments of Canada, the provinces and territories, corporations, not-for-profit organizations, other persons, international governments and international organizations relating to the development, implementation, adoption and use of electronic health information and communication technologies;

- c) Define, maintain and promote the use of architectures, frameworks, standards, and other enablers to support the compatibility, interoperability and benefits derived from electronic health information and communication technologies;
- d) Promote principles and practices that protect personal privacy, confidentiality of individual records and security of health information;
- e) Share knowledge, expertise and skills to promote better health and health care for Canadians.

The Corporation was funded by the Government of Canada with an initial contribution of \$500,000,000 on March 21, 2001, by an additional contribution of \$600,000,000 on July 31, 2003 and by another contribution of \$100,000,000 on June 8, 2004. These contributions were received in the form of global direct payment.

On March 30, 2007, the Corporation entered into an agreement with the Government of Canada for an additional contribution of \$400,000,000. As at March 31, 2017, the Corporation received contributions amounting to \$387,184,758 [\$377,773,865 – 2016]. These contributions were disbursed on demand according to the annual cash flow requirements.

On March 30, 2010, the Corporation entered into an agreement with the Government of Canada for an additional contribution of \$500,000,000. As at March 31, 2017, the Corporation received contributions amounting to \$455,974,660 [\$427,507,629 – 2016]. These contributions were disbursed on demand according to the annual cash flow requirements.

On February 28, 2017, the Corporation entered into an agreement with the Government of Canada for an additional contribution of \$50,000,000. As at March 31, 2017, the Corporation received contribution amounting to \$21,000,000. These contributions were disbursed on demand according to the annual cash flow requirements.

The contributions are restricted and are subject to terms and conditions set out in the related funding agreements.

2. Significant accounting policies

The financial statements have been prepared by management in accordance with Part III of the CPA Canada Handbook – Accounting standards for Not-for-Profit Organizations which sets out generally accepted accounting principles for not-for-profit organizations in Canada and include the significant accounting policies described hereafter.

Notes to financial statements

March 31, 2017

[Amounts in tables are in thousands of dollars]

Use of estimates

The preparation of financial statements in conformity with Accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the period. Actual results could differ from these estimates.

Revenue recognition

The Corporation follows the deferral method of accounting for contributions.

Externally restricted contributions from the Government of Canada and investment income on deferred contributions are initially recorded in the accounts as deferred contributions and then recognized as revenue in the year in which the related expenses are recognized. Contributions restricted for the purchase of tangible and intangible assets are deferred and amortized into revenue on a straight-line basis, at a rate corresponding with the depreciation and amortization rate for the related assets.

Cash

Cash includes only bank balances. Cash with investment managers and highly liquid short-term investments with a maturity of one year or less from the date of acquisition are considered as temporary investments.

Investments

Temporary and portfolio investments are recognized at their fair value at the balance sheet date using the trade date value. Changes arising from their subsequent measurements are recorded in deferred contributions. The fair value of investments is based on the quoted market prices obtained from the independent investment custodian.

Transaction costs to acquire or dispose of these investments are recorded in deferred contributions in the period during which they are incurred.

Receivables

Receivables include the contribution receivable from the Government of Canada when the Corporation's claimable amount for the year just ended exceeds the amount received. Receivables are initially recorded at fair value and subsequently measured at amortized cost.

When there are indications of possible impairment, the Corporation determines if there has been a significant adverse change to the expected timing or amounts of future cash flows expected from the receivables. Reversals are permitted, but the adjusted carrying amount of the receivables shall be no greater than the amount that would have been reported at the date of the reversal had the impairment not been recognized.

Tangible assets

Tangible assets consist of equipment and are carried at cost, less accumulated depreciation. Assets are amortized over their estimated useful lives using the straight-line method. Depreciation rates are the following:

Computer equipment	3 years
Office equipment	5 years

Intangible assets

Intangible assets are carried at cost, less accumulated amortization. Software and licenses are amortized over their estimated useful lives using the straight-line method on the lesser of duration of the license or 3 years.

Notes to financial statements

March 31, 2017

[Amounts in tables are in thousands of dollars]

Impairment

Tangible and intangible assets are assessed for impairment whenever events or changes in circumstances indicate that they no longer have any long term service potential to the Corporation. The impairment loss, the amount by which the carrying amount of these assets exceeds their residual value, if any, is charged to operations.

Accounts payable and accrued liabilities

Accounts payable and accrued liabilities are initially recorded at fair value and subsequently measured at amortized cost. Accounts payable and accrued liabilities include the contribution repayable to the Government of Canada when the amount received exceeds the Corporation's claimable amount for the year just ended.

Allocation of expenses

Some operating expenses such as information technology, office facilities, depreciation and some support functions were allocated to Programs and Projects based on level of effort and volume of projects. Total allocated expenses for the year ended March 31, 2017 was \$2,367,793 [\$2,756,952 – 2016].

3. Investments

	FAIR VALUE	
	2017 \$	2016 \$
TEMPORARY INVESTMENTS		
Bonds	91,345	110,477
Pooled Money Market Funds	30,277	52,731
	121,622	163,208
PORTFOLIO INVESTMENTS		
Bonds	154,439	162,671
	276,061	325,879

Bond maturities range between April 2017 and March 2019.

Through its investments, the Corporation is exposed to credit risk. Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument leading to a financial loss. It is the Corporation's policy to only invest in debt of counterparties with at least A- [or its equivalent category] investment ratings. Rating for at least two of the four following rating agencies: Moody's Investors Service Inc., Standard & Poor's Ratings Services, Fitch Rating Ltd. and DBRS Ltd. are

applied for the up-front multi-year funding [2007 EHICT Fund and the 2010 Budget Grant Fund]. The principal amount will not be invested in shares, warrants, or other equities, convertible debt securities, derivatives, swaps, options or futures.

The Corporation is exposed to interest rate risk on temporary and portfolio investments because the fair value will fluctuate due to changes in market interest rates. For the year ended March 31, 2017, the effective interest rate on investments varied between 0.5% and 1.6% [0.4% and 1.9% – 2016] depending on their respective maturities.

Notes to financial statements

March 31, 2017

[Amounts in tables are in thousands of dollars]

4. Tangible assets

Tangible assets include the following:

	COST \$	ACCUMULATED DEPRECIATION \$	NET BOOK VALUE \$
MARCH 31, 2017			
Computer equipment	1,957	1,929	28
Office equipment	1,721	1,568	153
	3,678	3,497	181
MARCH 31, 2016			
Computer equipment	3,923	3,804	119
Office equipment	2,356	2,220	136
	6,279	6,024	255

During the year ended March 31, 2017, the Corporation disposed of computer and office equipment amounting to \$2,682,581 [\$25,052 – 2016] which were fully amortized.

5. Intangible assets

Intangible assets include the following:

	COST \$	ACCUMULATED AMORTIZATION \$	NET BOOK VALUE \$
MARCH 31, 2017			
Software and licenses	12,884	4,687	8,197
MARCH 31, 2016			
Software and licenses	4,821	4,538	283

Notes to financial statements

March 31, 2017

[Amounts in tables are in thousands of dollars]

6. Deferred contributions

Deferred contributions related to expenses of future periods represent unspent externally restricted contributions, together with investment revenue earned, which have been restricted for the purpose defined in the objectives of the Corporation.

	2017 \$	2016 \$
Deferred contributions, beginning of year	261,067	336,179
Current year contribution from the Government of Canada	63,312	78,995
Contribution repayable to the Government of Canada	(9,148)	(4,435)
Investment income earned on contribution received during the year	129	127
Investment income earned on resources restricted to finance future disbursements:		
Interest income	6,459	9,101
Loss on sale of investments	(3,836)	(1,523)
Change in fair value of investments	(220)	(4,394)
Custodial and portfolio management fees	(340)	(401)
	2,063	2,783
Income recognized as revenue during the year	(109,693)	(152,393)
Amount applied toward tangible and intangible assets acquired during the year	(8,144)	(189)
Deferred contributions, end of year	199,586	261,067

The deferred contributions at the end of the year consist of:

Contributions related to the 2001-2004 Funding agreements	210,639	278,140
Contributions related to the 2007 Funding agreement	(2,018)	(2,219)
Contributions related to the 2010 Funding agreement	(17,690)	(14,854)
Contributions related to the 2017 Funding agreement	8,655	–
Deferred contributions, end of year	199,586	261,067

Notes to financial statements

March 31, 2017

[Amounts in tables are in thousands of dollars]

Deferred capital contributions

Deferred capital contributions represent the unamortized amount of contributions received and applied toward the purchase of tangible and intangible assets. The amortization of capital contributions is recorded as revenue in the statement of operations on the same basis as the amortization of the related tangible and intangible assets.

	2017 \$	2016 \$
Deferred capital contributions, beginning of year	538	802
Contribution applied toward the purchase of:		
Tangible assets	81	34
Intangible assets	8,063	155
	8,144	189
Amount amortized to revenues during the year related to:		
Tangible assets	(155)	(320)
Intangible assets	(149)	(133)
	(304)	(453)
Deferred capital contributions, end of year	8,378	538

Notes to financial statements

March 31, 2017

[Amounts in tables are in thousands of dollars]

7. Commitments

Contractual commitments

Since inception, the Corporation was awarded funding totalling \$2.15 billion to finance specific projects approved and committed to by the Board of Directors, subject to terms and conditions set out in the related funding agreements.

In accordance with its investment strategy, the Corporation has, since its inception, committed to finance, in whole or in part, project expenses totaling \$2.15 billion subject to the achievement of certain milestones by the Corporation's project sponsors. As of March 31, 2017, the unspent portion of these projects amounted to \$186 million of which \$139.3 million represents contractual commitments over the next three fiscal years.

On May 10, 2017, the Corporation entered into a Master Services Agreement (the "Agreement") with a supplier for the outsourcing of certain technology services. The Corporation's total commitment under the Agreement, which will expire in 2023, amounts to \$55.1 million.

Operating lease commitments

The Corporation rents premises under operating leases which expire November 30, 2020.

Minimum annual rental payments to the end of the lease terms are as follows:

	\$
2018	1,739
2019	1,841
2020	1,616
2021	330
	<hr/> 5,526 <hr/>

Corporate Information

(as at March 31, 2017)

Members of the Corporation

Stephen Brown

Deputy Minister of Health
Government of British
Columbia

Carl Amrhein

Deputy Minister of Health
Government of Alberta

Max Hendricks

Deputy Minister of Health
Government of Saskatchewan

Karen Herd

Deputy Minister of Health,
Seniors and Active Living
Government of Manitoba

Robert Bell

Deputy Minister of Health
and Long-Term Care
Government of Ontario

Michel Fontaine

Sous-ministre de la santé
Gouvernement du Québec

Tom Maston

Deputy Minister of Health
Government of New Brunswick

Denise Perret

Deputy Minister of Health
and Wellness
Government of Nova Scotia

Kim Critchley

Deputy Minister of Health
and Wellness
Government of Prince
Edward Island

John Abbott

Deputy Minister of Health
and Community Services
Government of Newfoundland
and Labrador

Brenda Lee Doyle

Acting Deputy Minister of
Health and Social Services
Government of the Yukon
Territory

Debbie DeLancey

Deputy Minister of Health
and Social Services
Government of the Northwest
Territories

Colleen Stockley

Deputy Minister of Health
and Social Services
Government of Nunavut

Simon Kennedy

Deputy Minister of Health
Government of Canada

Board of Directors

Peter Vaughan

Chair (2017)*

Christine McGinley

Vice Chair (2012)
Corporate Director, Calgary

Richard Audet (2013)

Sous-ministre associé aux
technologies de l'information
Ministère de la Santé et des
Services sociaux
Gouvernement du Québec

Robert Bell (2015)

Deputy Minister of Health
and Long-Term Care
Government of Ontario

Ian Brodie (2012)

Associate Professor,
Faculty of Arts
University of Calgary

Kimberley (Kim) Brooks (2016)

Professor, Dalhousie University,
Halifax

David Brown (2013)

Counsel, Davies Ward Phillips
& Vineberg LLP

Karen Herd (2013)

Deputy Minister of Health,
Healthy Living and Seniors
Government of Manitoba

Abby Hoffman (2016)

Assistant Deputy Minister,
Strategic Policy, Health Canada

Tom Maston (2014)

Deputy Minister of Health
Government of New Brunswick

Arnold Park (2011)

Partner, Cedar Bay
Grilling Company

Deborah Shera (2015)

Assistant Deputy Minister,
Health Sector Information
Management
Government of British
Columbia

Sheila Weatherill (2011)

Vice Chair, EPCOR
Utilities Inc.

* For each member, indicates
year appointed to the Board.

Board Committees

Finance, Investment & Audit

Arnold Park (Chair)

Ian Brodie

Kim Brooks

David Brown

Christine McGinley

Peter Vaughan (Board Chair)
(ex-officio)

Michael Green (CEO) (ex-officio)
(non-voting)

Compensation & Human Resources

David Brown (Chair)

Christine McGinley

Arnold Park

Peter Vaughan (Board Chair)
(ex-officio)

Michael Green (CEO) (ex-officio)
(non-voting)

Maureen Berry

(Human Resources Executive)
(ex-officio) (non-voting)

Governance

Ian Brodie (Chair)

Christine McGinley

Peter Vaughan (Board Chair)
(ex-officio)

Sheila Weatherill

Michael Green (CEO) (ex-officio)
(non-voting)

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